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ABSTRACT

Ohio's Work SITE Learning Model is the product of a national demonstration project for the integration of academic and vocational learning, funded by the U.S. Department of Education. The model is made up of three components: the connecting component, the school-based learning component, and the work-based learning component. This implementation guide is designed to assist schools in developing and conducting effective student worksite learning experience (SWLE) programs. Suggestions made in the guide were developed from information gathered through a national literature review, searching for best practices in school-business partnerships and work-based student learning experience programs. The main part of the guide consists of a 19-step process for developing a SWLE program. The guide also contains a glossary, an outline of the benefits of a SWLE program, principles for successful school-business partnerships, recommendations for establishing a SWLE program, and 29 references. Ten appendixes, which make up half of the document, contain the following materials: individual academic observation plans, SWLE agreement; communications with parents; promotional materials; a worksite contact sheet; tools for students; student performance evaluation materials; program evaluation materials; recognition and appreciation materials, and excerpts from an OCAP (Occupational Competency Analysis Profile) for business administration and management. (KC)

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ED 411 440

Helping Students Connect Academics to the Workplace:

An Implementation Guide for Student Worksite Learning Experiences

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Helping Students Connect Academics to the Workplace: An Implementation Guide for Student Worksite Learning Experiences

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Work SITE Learning Model

Project Overview

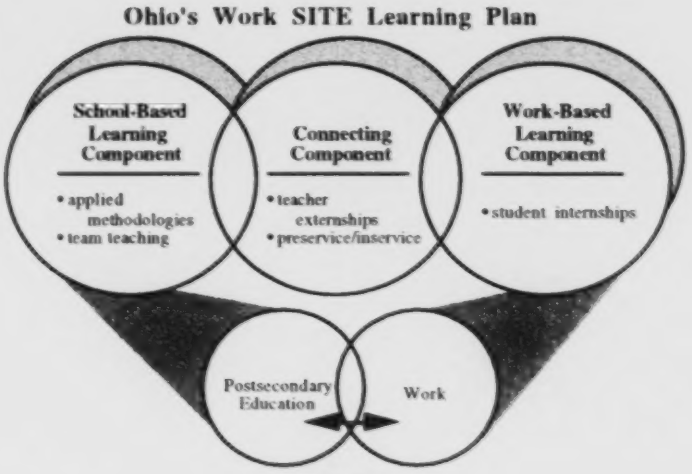

Figure 1

Project Overview

Ohio's Work SITE Learning Model is the product of a national demonstration project for the integration of academic and vocational learning, funded by the U.S. Department of Education. The model comprises three components. Help in replicating each of these components is provided through three implementation guides developed as part of this project:

- Connecting Component: To help ensure that teachers are prepared to serve as a link between the workplace and the school setting, teams of academic and vocational teachers should participate in short-term worksite externships focusing on the use of academics on the job. Those wishing to create teacher externship experiences can get assistance from *Helping Teachers Connect Academics to the Workplace: An Implementation Guide for Teacher Worksite Externships.*

- School-Based Learning Component: Following the externship experiences, teams have a more-solid basis for developing activities for the classroom and laboratory that require the use of academics within an authentic workplace context. Vocational teachers can also collaborate with academic

These three guides are available from the Vocational Instructional Materials Laboratory (VIML) at The Ohio State University. The sales office is located at 1900 Kenny Road, Columbus, Ohio 43210; (614) 292-4277; (800) 848-4815; fax (614) 292-1260.

teachers in incorporating into applied academic classrooms the concrete, hands-on methodologies that have proved so successful with the vocational student population. Help in developing applied academic activities can be found in *Making Connections: A Curriculum Ideabook for Teachers of Applied Academics and Industrial & Engineering Systems.*

- Work-Based Learning Component: To reinforce for students the fact that academic skills are critical to success in the workplace—and are highly valued by employers—students, too, need to spend time in the workplace, focusing on the use of academics on the job. Early in the first year of a vocational program, teachers should arrange for student worksite learning experiences (SWLEs) through which students observe how academics are used in local business and industry, health care, government, or social service agencies. *Helping Students Connect Academics to the Workplace: An Implementation Guide for Student Worksite Learning Experiences* is designed to help schools develop SWLE programs.

The following improvements may result from these efforts to connect school and work:

- Teaching team members often become more united, enhancing their abilities to jointly assess how academics are applied to a given occupation.
- Teaching team members are more likely to collaborate in planning, preparing, and delivering academics that are integrated with occupationally specific education.
- Teaching team members are better prepared to structure meaningful student worksite learning experiences for their students.
- Students who have participated in SWLEs are more likely to understand the connection between academic and vocational studies—because they have seen it in practice in the workplace.

ACKNOWLEDGMENTS

This guidebook is the product of many people who committed their time and talents to help make it a useful resource for educators wishing to develop a teacher worksite externship program.

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Rationale for the Integration of Academic and Vocational Education

Over the past decade, education reformers have consistently made four recommendations:

1. The role of vocational education should be to make youth employable.
2. Employability skills can be attained best when vocational education complements academic education.
3. Academic and vocational curricula should be integrated and their coequal importance recognized.
4. Students should see the connection between academic skills they are required to learn and the world of work in which they will be required to apply them.

Curricular integration is an important method for implementing these recommendations. To achieve the full benefits of curricular integration, vocational and applied academic teachers must work together as *teams* and both teachers and students must understand how academics are applied in the workplace. Integration efforts may result in the following instructional improvements:

- Members of teaching teams employ hands-on teaching strategies, coordinate when specific topics are taught, and develop interdisciplinary assignments.
- Vocational teachers stress academics as they teach technical skills.
- Applied academic teachers provide opportunities for students to use academic skills in vocational contexts.

Many educators and researchers, including those listed in the reference section of this guide, have found significant *benefits* resulting from the integration of vocational and applied academic instruction, including the following:

- Academic competencies are validated and related to the world of work.
- Employability skills are improved.
- Workers are better prepared.
- Student motivation is improved.
- The link between work and the need for lifelong learning is established.
- Students make more informed career choices.
- Basic skills are reinforced.
- Business, industry, and community-based organizations develop improved community relations.
- Schools, business, industry, and community-based organizations develop effective partnerships.

About This Guide

The purpose of student worksite learning experiences (SWLEs) is to provide vocational students with opportunities to observe workplace practices in order to learn about how academic skills are used on the job. Students participate in unpaid SWLEs early in their vocational program–preferably during the fall of the program's first year. Some schools conduct SWLEs in place of current shadowing or internship programs.

It is strongly recommended that SWLEs be preceded by teacher externships. During externship experiences, teaching teams visit worksites to learn how academics are used by front-line employees. Team members then work together to modify their curricula to incorporate their findings. They also develop activities for students, such as SWLEs, that are designed to help their students understand the connection between vocational and academic skills.

SWLEs may be followed, usually in the senior year, by paid experiences in co-op or apprenticeship programs. SWLEs may be supplemented by additional worksite-school educational partnership efforts such as teacher-worksite representative job swaps, student tours, in-school presentations, business support for and funding of projects, mentoring, and practice job interviews.

This implementation guide is designed to assist schools in developing and conducting effective SWLE programs. Suggestions made in the guide were gleaned from information gathered through a national literature review, searching for best practices in school-business partnerships and work-based student learning experience programs. It was validated and enhanced by Ohio vocational and applied academic teachers and their students who participated in a pilot SWLE project. In addition, this document was reviewed by Ohio vocational and applied academic teachers and members of the project's Grant Coordination Committee. Its contents are meant to serve as guidelines and provide a variety of options. ***Each school will need to determine the best way to implement a student worksite learning experience program to meet individual needs, resources, and structures.*** The following definitions are presented to clarify the information presented in this implementation guide.

Definitions

For the purposes of this document, the following definitions are used:

Administrative Liaison: A school employee who is responsible for coordinating the student worksite learning experience program.

Applied Academics: Instruction that includes the use of methodologies, skills, and knowledge from several academic or vocational disciplines to facilitate the transition from school to work and to prepare students for lifelong learning and real-world problem solving. In other words, applied academics is putting relevance into what is taught.

Business: For the purposes of this document, the word ***business*** is meant to represent all areas of private business, industry, and labor as well as community-based organizations such as government, health care, and social service agencies. In addition, ***business*** and ***worksite*** may be used interchangeably.

Competency: An observable and measurable behavior that has a definite beginning and end; can be performed within a limited amount of time; consists of four or more competency builders; and leads to a product, service, or decision.

Competency Builders: The skills, knowledge, and attitudes, written in measurable terms, needed to perform a given competency.

Correlated Academics: Instruction that includes the use of methodologies, skills, and knowledge from an academic discipline or disciplines to complement the occupational skills and knowledge in a vocational program. In other words, correlated academics is applied academics focused on one or more specific occupations.

Individual Academic Observation Plan: A written statement of desired outcomes and activities that should be accomplished by each student during the SWLE. It should include applicable vocational, academic, SCANS, and employability competencies (e.g., from OCAPs). Each plan should be written by the SWLE teacher team, with input from the student. The plan provides the basis for an agreement between the teacher team, the student, and the worksite. Further information is provided in Step 5.

Occupational Competency Analysis Profile (OCAP): A list of occupationally specific skills (or competencies) that are verified by individuals from business, industry, labor, and community-based organizations who currently practice the occupation. Each OCAP identifies the occupational, academic, and employability skills needed to enter a given occupation or technical area. OCAP documents also contain Academic Job Profiles determined by the ACT Work Keys System. Excerpts from an OCAP are provided in Appendix J, pp. 135-149.

SCANS: Required employment skills determined by the Secretary's Commission on Achieving Necessary Skills. The SCANS report states that effective workers need to productively use—

- resources (e.g., how to allocate time, money, materials, space, and staff);
- interpersonal skills (e.g., work in teams, teach others, serve customers, lead, negotiate, and work well with people from culturally diverse backgrounds);
- information (e.g., acquire and evaluate data, organize and maintain files, interpret and communicate, and use computers to process information);
- systems (e.g., understand social, organizational, and technological systems; monitor and correct performance; design or improve systems); and
- technology (e.g., select equipment and tools, apply technology to specific tasks, maintain and troubleshoot equipment).

In addition, SCANS identifies a three-part foundation of skills and personal qualities needed for solid job performance—

- basic skills (reading, writing, math, speaking, and listening);
- thinking skills (thinking creatively, decision making, problem solving, and knowing how to learn); and
- personal qualities (individual responsibility, self-esteem, sociability, self-management, and integrity).

Student Worksite Learning Experience (SWLE) Program: A structured, teacher-directed opportunity for vocational students to observe how academics are applied in the workplace. It is intended that students will participate in SWLEs early in the first year of a vocational program.

Teacher Worksite Externship: An experience in which teams of educators visit business, industry, and community-based organizations to observe current practices and glean information about how academics are used in the workplace in order to modify the program curriculum.

Teaching Team: Vocational and applied academic teachers who work together to make externship visits to worksites, arrange and oversee SWLE visitations, and develop applied academic strategies for the benefit of their mutual students. Teams comprise the vocational teacher(s) who instruct students enrolled in a specific vocational program and one or more applied academic teachers (e.g., applied mathematics, science, and communications) who instruct the same students.

Work Keys System: Developed by American College Testing (ACT), Work Keys is a national system for documenting and improving generalizable workplace skills (i.e., applied mathematics, applied technology, reading for information, locating information, listening, writing, and teamwork). It provides individuals with reliable information regarding both their own workplace skills and the skill levels required in jobs. Academic Job Profiles determined through the Work Keys System are included in each OCAP document. Information about the Work Keys System is provided in Appendix J, pp. 135-149.

Worksite Contact Person: A person at the worksite who communicates with top management and the school's administrative liaison, recruits worksite mentors to host SWLE students, and provides support for the program.

Worksite Mentor: A person at the worksite who provides direction to a student and to whom the student is responsible. Worksite mentors help ensure that students have opportunities to attain the goals of their Individual Academic Observation Plans.

Benefits

Participation in student worksite learning experience programs is a win-win endeavor for educators, students and business, industry, and community-based organizations. Those involved in school-worksite partnerships such as job shadowing, SWLEs, internships, co-ops, and apprenticeships report benefit to all parties. Specific benefits of SWLEs include the following:

- Business, industry, and community-based organizations have an active role in demonstrating to students the academic competencies needed to be successfully employed at their worksites.
- Business, industry, and community-based organizations have opportunities to provide input that may result in the individual growth and production of good citizens, effective workers, and contributing taxpayers.
- Vocational and academic teachers are able to tap into the professional expertise available at worksites and use it in developing real-world examples, projects, and activities for students.
- Schools have increased opportunities to interact with people at worksites and establish positive relationships.
- Worksites and schools have increased opportunities to enhance their reputations and public images.
- Students experience increased opportunities for integrated, hands-on, work-related learning in academic instruction.
- Students are provided with opportunities to observe how academics are used in the workplace, which often results in increased motivation to learn academic subject matter.
- Students have opportunities to develop potential contacts that may broaden employment options.
- Students have opportunities to reality-test careers to help make informed choices.

"The SWLE has been an all-around positive experience for students and teachers."

SWLE Pilot Project Teacher

"I learned that the skills we are learning here in school are used in many workplaces and are more valuable than we think about."

SWLE Pilot Project Student

Principles for Successful School-Worksite Partnerships

Across the country, school-worksite partnerships have been developed for a wide variety of reasons. Because the purposes, goals, and cultures of schools are very different from those of business, industry, and community-based organizations, it is helpful for educators and worksite representatives to keep the following principles in mind when working in partnerships:

- Keep the focus on the main goal–educational improvement.
- There are benefits for all partners–not just education.
- It is vital that top worksite and education leaders are committed to the program.
- Partnerships should be coordinated by people with leadership ability who have access to top decision makers.
- Schools have primary responsibility for education, but they need to ask for, listen to, and attempt to follow the recommendations of their partners.
- Recognition and appreciation should be shown on a regular basis by all partners for what the others contribute.
- Desired outcomes should have measurable criteria and be monitored to evaluate, improve upon, and report on the program.
- The people involved must have the support needed to fulfill their partnership responsibilities. Often, this means that they be given enough *time* to carry out designated tasks.

Educators can help to avoid problems in school-worksite partnerships by—

- ensuring that the partnership is not a public relations strategy for either partner and
- being aware of the private sector perspective–one that emphasizes performance and measurable results. The most successful partnerships operate when schools can make faster-than-usual decisions and work within a more-flexible-than-usual calendar.

Steps to Developing a Student Worksite Learning Experience (SWLE) Program

When developing an SWLE program, a school should consider the following steps. Because schools have a wide range of resources and goals concerning SWLEs, these steps are meant to provide participants with options–not rigid requirements. Although this is a sequential list, some of the steps may be done simultaneously.

Preparing for SWLEs:

1. Select and determine the roles and responsibilities of an administrative liaison.
2. Select and determine the roles and responsibilities of teacher team members.
3. Determine how the SWLE program will be structured.
4. Assess the status of liability coverage.
5. Design Individual Academic Observation Plans for students.
6. Develop promotional materials.
7. Locate potential worksite placements.
8. Make initial contact with representatives at potential SWLE worksites.
9. Arrange for student placements at worksites.
10. Match students with worksites.
11. Write SWLE Agreements.
12. Develop written materials.
13. Prepare students for worksite visits.

During SWLEs:

14. Observe students at worksites.

After the SWLEs:

15. Assess student attainment of SWLE desired outcomes.
16. Incorporate worksite learning experiences into the curriculum.
17. Evaluate the SWLE program and share results.
18. Recognize contributions of worksite representatives and acknowledge appreciation.
19. Follow up with contacts at worksites on a regular basis.

The following pages provide detailed suggestions for completing each step.

Step 1: Select and Determine the Roles & Responsibilities of an Administrative Liaison

The most effective way to coordinate the efforts of an SWLE program is to designate an *administrative liaison*. This person should have decision-making *authority* or direct access to those who do. This person should also have enough *time* to do the job well. Consequently, schools don't usually appoint a full-time teacher as administrative liaison. If a teacher is chosen as liaison, adequate released time needs to be provided.

When determining who will coordinate the school's SWLE program, consider the following:

- Is the administrative liaison *motivated* to carry out the assigned responsibilities?
- Does the administrative liaison have enough *time* to do what is required to make the program succeed?
- Can the administrative liaison easily make and receive *telephone calls* during business hours?
- To whom will the administrative liaison report to?
- What will the administrative liaison's *roles and responsibilities* be? They might include the following (detailed information about these roles and responsibilities is contained in the steps noted):
    - Help to determine how the SWLE program will be structured (Step 3)
    - Provide assistance to teacher teams upon request (Steps 3-19)
    - Assess the status of liability coverage for the school, teachers, and students (Step 4)
    - Provide teacher teams with appropriate OCAPs, SCANS, and ACT Work Keys information (Step 5)
    - Develop promotional materials (Step 6)
    - Publicize the SWLE program (Step 6)
    - Assist teacher team members in developing and ranking a list of potential worksites (Step 7)
    - Make initial contacts with representatives at potential SWLE worksites to "sell" them on the program (Step 8)
    - Provide teacher teams with names of representatives at worksites who are interested in participating in SWLEs (Step 8)
    - Write SWLE Agreements that describe the arrangements that were agreed upon by participating worksite representatives and teacher teams (Step 11)

- Distribute and collect SWLE Agreements (Step 11)
- Develop written materials (Step 12)
- Develop and distribute SWLE program evaluations (Step 17)
- Collect, synthesize, and disseminate evaluation information (Step 17)
- Send thank-you letters and certificates of appreciation to worksite participants (Step 18)
- Follow up with contacts at worksites on a regular basis (Step 19)

Step 2: Select and Determine the Roles & Responsibilities of Teacher Team Members

It is important to remember that the goal is to select *teams* of educators who will work together to participate in teacher externships, plan SWLEs, modify curriculum, plan instruction, and collaborate in teaching. The selection of teacher team members was discussed in depth in *Helping Teachers Connect Academics to the Workplace: An Implementation Guide for Teacher Worksite Externships*. Team members should believe in the program's objectives and should be motivated and enthusiastic about participating. In most cases, the administrative liaison or the administrators invite teachers who teach students in the same vocational program to participate as a team. For example, a construction teacher and the applied math, applied science, and/or applied communications teachers who work with construction students would form a team for teacher externships, SWLEs, and integrated instructional efforts.

All teacher team members should work together, along with the administrative liaison, to plan and conduct SWLEs. Depending on how these individuals agree to divide SWLE tasks, teachers' roles and responsibilities may include some or all of the following (detailed information about each of the roles and responsibilities is contained in the steps noted):

- Help to determine how the SWLE program will be structured (Step 3)
- Design Individual Academic Observation Plans for students (Step 5)
- Work with the administrative liaison to develop promotional materials and publicize the program (Step 6)
- Work with the administrative liaison to develop and rank a list of potential SWLE worksites (Step 7)
- Contact representatives at potential SWLE worksites, (identified by the administrative liaison) to arrange for student placements (Step 9)
- Match students with appropriate worksites (Step 10)
- Write SWLE Agreements that describe the arrangements that were agreed upon by participating worksite representatives and teacher teams (Step 11)
- Develop written materials (Step 12)
- Prepare students for worksite visits (Step 13)

"Teacher team member must *all* be willing to share the work. To make the SWLE work, everyone has to do his or her part."

SWLE Pilot Project Teacher

"Academic teachers benefited as much as students. SWLEs and teacher worksite externships helped them to learn about worksite examples. These experiences also helped them relate to their students."

SWLE Pilot Project Teacher

NOTE: If SWLEs have been done in the past, current teacher participants can learn a lot by consulting with previous participants.

- Observe students at each SWLE site (Step 14)
- Assess student attainment of desired outcomes (Step 15)
- Incorporate worksite learning experiences into the curriculum (Step 16)
- Evaluate the SWLE program (Step 17)
- Recognize contributions of worksite representatives and acknowledge appreciation (Step 18)
- Consult with the administrative liaison if questions arise or roadblocks are encountered (Steps 3-19)
- Follow up with contacts at worksites on a regular basis (Step 19)

Step 3: Determine How the SWLE Program Will Be Structured

Vocational and applied academic teacher team members and the administrative liaison should work together to develop parameters for the SWLE program. If SWLEs were done in previous years, the administrative liaison and current participants may also wish to consult with former participants. Consider the following questions:

- *When* is the best time for students to participate in SWLEs? For maximum impact on students' abilities to connect academic skills to the vocational content, SWLEs should be conducted in the fall of the first year of a vocational program.

- *Who* will participate?
  - ✓ How many vocational programs will participate in SWLEs?
  - ✓ Will all students in designated programs be required to participate in SWLEs, or will participants be selected by the team members?
  - ✓ If a selection process is used, will the selection criteria mirror some of the hiring criteria used at worksites (e.g., regular attendance, demonstrated work ethic)?

NOTE: One pilot teacher team chose to make participation a privilege rather than a requirement. At the beginning of the year, the criteria for participation in SWLEs were discussed with students and described to parents or guardians in a letter. (A sample letter is provided in Appendix C.) The criteria, which included specific requirements for behavior, grades, and attendance, were used as a motivator.

- *How long* will SWLEs last?
  - ✓ Will they be, for example, 2-day or 2-week experiences?
  - ✓ Will the experiences be concentrated in a contiguous time block or spread out across several weeks or months?

NOTE: In written accounts of SWLE programs, many teachers have reported that their "marginal" students learned a great deal from and were motivated by their participation in SWLEs. In addition, to their surprise, the inclusion of these students tended to help, rather than damage, relationships between the worksite partners and the school.

NOTE: Research indicates that SWLE programs average 3-5 days in length and span an average of 1-4 weeks. Individual visits last from 2-9 hours. Students and teachers report that visits of 2-3 hours were not as meaningful as 1-day visits. In addition, longer visits (e.g., 1 full day) allow students to gain more in-depth understandings of worksites. Furthermore, it is more likely that students will have hands-on experiences if visits are at least a half-day in length.

Pilot SWLEs were structured in a variety of ways. One team spent a whole week on SWLEs: orientation, 3 days of SWLE visits, 1 day of debriefing and letter writing.

Another team had students visit five different worksites for one-half day each on consecutive days. They discussed their experiences and observations with teaching team members at the end of every day.

Another team conducted full-day SWLEs on four consecutive Tuesdays. They discussed their experiences and observations with teaching team members each Wednesday morning.

- *How many* worksites will each student visit and observe? It has been found that the most successful SWLEs involve student visits to multiple worksites that represent the range of worksites that hire workers from the student's vocational area.

- How will the SWLE be *supervised* (e.g., how often, by whom)? What will be the supervisory responsibilities for the worksite mentor and the teacher team members?

- Although the primary *focus* of the SWLE is to help students see the relationship between academic and vocational skills, are there any other aspects of the job that teacher teams may want students to observe? For example, SWLE participants may gain insights about general employability skills (e.g., behavior on the job, dress, general expectations at work sites) or worksite safety procedures.

- What types of *activities* will students be asked to do during SWLEs? Depending on the vocational program and individual students' needs, teachers may ask that students have a wide range of opportunities. (Some options are provided in Step 5.)

NOTE: During SWLEs, it is *critical* that students do more than observe others at work. After all, SWLEs are not the same as job shadowing. The most meaningful SWLEs provide students with opportunities to *actively participate* in at least one worksite activity.

Step 4: Assess the Status of Liability Coverage

Once program parameters are decided upon, the administrative liaison should investigate issues related to *insurance* and *liability* for the school and participating worksites. These issues arise any time students leave school premises to continue learning at the workplace. When students participate in unpaid work-based learning experiences, insurance coverage and liability can rest with either the school or the worksite, depending on the circumstances. Often, because students' learning activities off school premises are generally considered to be an extension of the school, students are protected by the school district's liability policy. However, as more and more students take advantage of unpaid learning opportunities, many worksites and schools now want students to be covered by special insurance policies and riders. To provide such coverage, schools can amend their liability and workers' compensation insurance or purchase separate coverage. Worksites can acquire general liability policies.

Liability issues generally fall into the following categories:

- Injury occurring to students while at the worksite
- Injury occurring to students while in transit to or from the worksite
- Injury occurring to patrons or employees of the worksite as a result of student actions
- Damage occurring to the worksite property as a result of student actions

In addition, the federal Fair Labor Standards Act (FSLA), which protects the rights and safety of young workers, may be brought up by worksite personnel. Because the FSLA only applies to students who are considered to be in an employment relationship with the worksite, and because SWLEs are unpaid experiences, the FSLA should not be an issue.

Worksites and schools are encouraged to seek legal advice in order to protect themselves from risks and liabilities.

Step 5: Design Individual Academic Observation Plans for Students

The Individual Academic Observation Plan provides the basis for each student's worksite learning experience. It should include a list of *desired outcomes*, a description of the types of *activities* that a student should undertake at the worksite, and ways in which the student will be *evaluated.*

The plan should be attached to and will become a part of the SWLE Agreement, which is a contract between the school, the worksite, and the student. (Additional information about the SWLE Agreement is provided in Step 11.)

To ensure that desired SWLE outcomes and activities are comprehensive, plans should be written *jointly* by the team of vocational and applied academic teachers working in the student's area of study. In addition, the teacher team members may wish to include the *students* when designing SWLE plans. By participating in the development of their own Individual Academic Observation Plans, students will have a chance to formulate their own objectives and suggest ways in which they would like to gather information at worksites. It may also be appropriate for students to help decide how their SWLEs will be evaluated. Student involvement in developing SWLE plans can have a positive effect on how seriously students take their activities at the worksites and the degree to which they attain the desired outcomes of their plans.

The *desired outcomes* specified in the Individual Academic Observation Plan should–

- take into account students' skills, interests, and career goals;
- reinforce academic skills and knowledge used in the workplace;
- prepare students for their roles as employees (e.g., dress, attendance, punctuality);
- involve one or more specific tasks or assignments; and
- infuse appropriate SCANS competencies, ACT Work Keys information, and OCAP applied academic competencies. If teachers do not have needed SCANS, Work Keys, or OCAP materials, they should request them from the administrative liaison.

NOTE: Some pilot teachers put all student worksheets, checklists, and other SWLE-related information in a folder or notebook. When students complete their SWLEs, they are required to turn in their notebooks for teachers to review and grade.

Possible worksite *activities* include, but are not limited to the following:

- Briefly touring the area to gain a general understanding of the worksite
- Attending an orientation to the worksite led by the CEO, a manager, or a human resources officer
- Observing work environments, facilities, and interactions (examples are provided in Appendix F, pp. 99-109)
- Observing and interviewing people who are actually doing the occupational tasks that students are learning to perform in school in order to determine the role of academics (a list of possible interview questions is provided in Appendix F, pp. 97-98)
- Gathering and examining forms, graphs, charts, and other written materials that are used at the worksite
- Using a checklist or data sheet to tally the types and frequency of math, science, or communication skills that are used by one or more people at each worksite (examples are provided in Appendix F, pp. 99-109)
- Performing hands-on tasks that require academic skills (e.g., making calculations, operating uncomplicated equipment, or writing orders)

The degree to which desired outcomes have been attained can be *assessed* through a wide range of student assignments and activities. Because the SWLEs are complex and their results can be seen over a long period of time, it is suggested that multiple measures be used, including several of the following:

- Worksite observations by one or more team members
- In-class discussions
- Individual conferences with one or more of the team teachers
- Student journals (e.g., observations, explanations, and analysis of how academics were used in the workplace)
- Completed checklists or worksheets
- Written reports (e.g., describing math, science, or communications applications and drawing conclusions)

- Assignments that require students to synthesize information gathered at worksites; for example:
  - ✓ Design a flow chart of the type and flow of communication at each worksite. Make a chart or graph indicating the frequency of mathematics usage at cash registers, with calculators, on job sheets, and on time cards at each worksite.
  - ✓ Write about one or two major scientific principles used at each worksite, and give examples of how each was applied at worksites. In addition, indicate what high school classes might teach those principles.
  - ✓ Develop a worksheet for classmates that involves the use of math, science, or communications at worksites.
  - ✓ Make an oral presentation (individually or in a small group) to the class and team teachers (e.g., description and analysis of academic applications that were used at worksites).
- Reflections and evaluations recorded in the SWLE Student Log and SWLE Student Self-Evaluation Form (examples are provided in Appendix F, pp. 110-111 and Appendix G, pp. 114-115)
- Worksite mentors' evaluations of student performance; for example feedback concerning students' attendance, dispositions, appearance, and performance (an example is provided in Appendix G, pp. 116-117)
- Teachers' evaluations of student performance (an example is provided in Appendix G, pp. 118-119)

A sample Individual Academic Observation Plan is provided in Appendix A, pp. 71-73.

NOTE: As an incentive, vocational and/or applied academic teachers may decide to give students course credit for their completed SWLE assignments.

Step 6: Develop Promotional Materials

Promotional materials can help enhance the public image of participating worksites as well as that of the school and specific vocational programs. The administrative liaison should be responsible for the development and distribution of SWLE program materials including a *promotional brochure*, *press releases*, and *newsletter articles*. However, the liaison should not be expected to develop these materials alone. Several options for input and support exist, including the following:

- Solicit input from teacher team members.
- Involve the school's marketing program. Teachers and/or students may be able to develop an effective marketing strategy and corresponding materials.
- Involve students who will participate in SWLEs. Their pre- and post-visit applied communications activities might include writing brochures, articles, and press releases.
- Consult with the district's public relations personnel.
- Hire a public relations consultant, if funds are available.

A *brochure* is the preferred choice for promotional materials because it has a professional, easy-to-read format that public and private worksites use frequently. The SWLE brochure should—

- describe the SWLE program,
- list the SWLE program goals,
- point out the benefits of the program to potential work sites,
- list the names of previous worksite participants, and
- include quotes from previous, satisfied worksite and student participants, if possible.

Because printing multi-colored brochures is costly, and because relatively few copies of the SWLE brochure may be needed for the academic year, schools may want to keep costs down by—

- duplicating brochures in the school's print shop,
- photocopying brochures on heavy, colored paper, or
- photocopying or laser-printing brochures on tri-fold brochure blanks that have colorful, professional-looking borders (available at office supply stores).

HINT: If the liaison will be interacting with union-oriented worksites, the liaison should consider having business cards printed in a union shop. Union printers include the union "bug" on all cards they print–indicating to potential worksite partners the card bearer's support of unions.

A *letter of introduction* should accompany brochures that are mailed or hand-delivered to worksites. Use official school letterhead for this and all other SWLE correspondence.

The administrative liaison's *business card* should be included with SWLE correspondence and brochures. Because of their frequent use by professionals at worksites, those who don't have a business card should consider having one printed. Business card information should be brief and simple and might include the school logo. It may be possible to have cards made in the school's print shop. If not, office supply stores often have standard business card formats and print them inexpensively. In addition, most local printers can have cards made.

Articles and *press releases* that publicize the SWLE program should be submitted to local newspapers and magazines, school newsletters, trade journals, advisory committee members, school board members, and others. Information about SWLEs can also be distributed at parent open houses, vocational school organization (VSO) events, and career days. In addition, SWLE program information should be circulated to all teachers and staff members in the school. Publicity should include–

- a description of the SWLE program,
- the number of student participants and their vocational areas,
- the names of worksite partners, and
- a brief summary of the program outcomes (if the article is written after the program has taken place).

Examples of the promotional materials described above are provided in Appendix D, pp. 83-90.

Step 7: Locate Potential Worksite Placements

Based upon the learning activities prescribed in the completed Individual Academic Observation Plans, the teacher teams and the administrative liaison should determine what types of worksite placements will be needed to help students attain their desired outcomes. When determining placement needs, consider the following:

- Number of student placements needed
- Types of experiences desired by students and teachers
- Occupational area(s) involved

In most schools, the administrative liaison is responsible for *identifying potential sources* for SWLE sites. The liaison should seek the recommendations of others to learn which local worksites might be able to provide students with meaningful SWLEs. The liaison should gather a list of potential SWLE worksites, and names of contact people at those worksites, from a wide variety of sources, including the following:

- Vocational and applied academic teachers
- Vocational students (e.g., seniors who had good experiences with co-op employers)
- School employees, including career counselors, job placement coordinators, school-to-work coordinators, and administrators
- State associations (e.g., State Manufacturing Association, State AFL-CIO, State Restaurant Association)
- Local business organizations (e.g., chambers of commerce)
- Local labor organizations (e.g., AFL-CIO local central bodies, labor unions)
- Local leaders of business, industry, labor, and community-based organizations
- Professional organizations and societies
- Local civic service clubs
- Advisory committees
- Personal contacts
- School alumni
- Yellow pages advertisements

Once the list of potential SWLE sites is compiled, the liaison and teacher team members should work together to ***rank order*** potential worksites. Ranking will help determine which worksites will provide the best experiences for students. When selecting appropriate SWLE sites, the following questions should be considered:

- Can the site provide the experiences needed by students? For example, will students be exposed to applications of academics?
- Can the site provide a wide variety of experiences?
- Is there support and enthusiasm for the program?
- Is the worksite recommended by appropriate state or local organizations?
- Are there indications that there is a supportive work climate? For example, is there a process for providing front-line employees with ongoing training and skills upgrading? Is there an apprenticeship program? Is there labor-management cooperation?
- Will the worksite be able to provide the needed support and supervision for students?
- Will the worksite provide safe working conditions?
- Has the worksite successfully supported job shadowing, internship, or co-op programs for students in the past?
- Has the worksite successfully supported externship programs for teachers in the past?
- Is this worksite a potential placement site for student internships and/or co-ops?
- Is this worksite in a convenient and accessible geographic location for students?
- Is this a good time of the year to visit the worksite? For example, might visits occur during a seasonal down-time or a time when most employees take vacation?
- Is there a diverse pool of potential worksites available for SWLEs? For example, is the pool representative of the range of local employers for targeted vocational areas? Are large and small companies included? Are newer, as well as established, companies included? Does the pool include both locally owned organizations and local divisions or branches of statewide or nationwide corporations or organizations?

Step 8: Make Initial Contact with Representatives at Potential SWLE Worksites

Plenty of time should be allowed for this step! It is critical that every person involved, including top management, supports the SWLE program and understands his or her part in making it succeed.

Preparing to Contact Potential SWLE Worksites

When preparing to contact potential worksites, one decision the administrative liaison needs to make is *who* will make the initial contacts. This decision may be made in consultation with teacher team members.

Because it is preferable for worksites to deal with one person in a school, it is recommended that *the administrative liaison make the initial contact at potential SWLE placement sites.* When a single school-worksite liaison is not designated, companies can become overwhelmed and frustrated. For example, the worksite contact person may call the school and be unclear about who to speak with about SWLEs. Companies may get requests to provide SWLE placements from several different vocational programs–causing them confusion and requiring them to cover the same ground more than once. It may also be possible that several different people at the same worksite may be contacted to request their participation in the same SWLE program. These and other situations may result in deterioration–rather than strengthening–of partnerships.

A second area of importance is deciding how contacts will be made. When planning for the process of contacting potential SWLE worksites, the liaison should consider the following:

- Be professional (e.g., dress according to workplace standards, arrive on time, be knowledgeable about the company).
- Communicate clearly. Avoid educational jargon. Use the language of the workplace when possible. In addition, be aware that the overuse of academic credentials or titles might create a barrier.

NOTE: There may be instances in which a teacher team member may be the best choice to make the initial contact to potential SWLE worksites. For example, a vocational teacher may have a strong professional relationship with an advisory committee member who works at a potential SWLE worksite. In other cases, because they "speak the language of the worksite," vocational teachers may be the best people to make the worksite contacts. As long as a teacher from only one team contacts each potential worksite, it may be appropriate for him/her to make the initial contact calls.

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- Be prepared to "sell" the worksite representatives on participating in the SWLE. Think about ways to communicate *what the program can offer to them*. For example—
  - ✓ "Your company's participation in SWLEs will provide you with several services including. . ." or
  - ✓ "By assisting the school and its students with SWLEs, your needs will be met, including. . ." or
  - ✓ "By participating in SWLEs, you will be helping both students and teachers learn what you, as an employer, are looking for in your employees."
- Keep phone calls and meetings brief, to the point, and focused on anticipated results.
- Expect that all goals may not be accomplished in just one meeting. Plan to return with additional information and, if needed, to speak with others at the worksite about the details of the program..

A third important aspect of planning contacts with potential SWLE worksites is deciding *what information* should be collected. During initial contacts with worksite representatives, the administrative liaison should record all relevant information on a Worksite Contact Sheet. An example is provided in Appendix E, pp. 91-93. This, and other gathered information, will be shared later with SWLE teachers.

The administrative liaison and the teacher team members should work together to determine what information will be needed. At a minimum, contact sheets should include—

- name and address of the company,
- direct phone number of the worksite contact person,
- a brief description of the company's primary product or service,
- vocational fields that are related to SWLE students' vocational programs,
- types of opportunities that students may have at the worksite, and
- the number of students who may be placed at the work-site.

Worksite Contact Sheets may also include information about other ways in which worksite representatives might be willing to collaborate with schools. This information should later be passed on to appropriate teacher team members, counselors, and administrators who can use the information when planning other types of worksite partnerships.

Making Initial Contacts with Potential SWLE Worksites

Once preparations are complete, making initial contacts includes the following:

- Identifying the most appropriate contact person at each worksite
- Making an initial contact by phone or mail
- Meeting with worksite contact people to discuss participation in SWLEs

First, the liaison needs to *identify the most appropriate person* at the worksite. This is not as easy as it sounds, but it may be the most crucial step in the contact process. People at different worksites may have the same job title but perform very different functions, so the most appropriate person to contact may vary from worksite to worksite. Ideally, the contact person will be with someone who is receptive and who has the *power or ability to make decisions* concerning the worksite's participation in the SWLE program.

Once the contact person at a targeted worksite is identified, the next task is to make an *initial contact*. The purpose of the initial contact is to introduce the liaison and the SWLE program to the company through the contact person. The initial contact can be made by *phone* or *mail* and needs to be followed up with one or more face-to-face meetings.

In the initial phone call or letter, the administrative liaison should—

- describe the program,
- point out its benefits to the worksite,
- request the participation of the worksite, and

- indicate when the contact person can expect a call from the liaison to discuss the SWLE program and to arrange a meeting time, if the initial contact is made by letter. (Follow-up calls should be made within 1 week of when the letters are received.)

In addition, mailing enclosures might include—

- a promotional brochure that describes the SWLE program,
- the administrative liaison's business card,
- a brief description of the school's current partnerships with other worksites, and
- the vocational and applied academic program goals and objectives.

Examples of promotional materials are provided in Appendix D, pp. 83-90.

If the targeted worksite was contacted initially by phone, and if the worksite contact person believes that the company may be interested in supporting SWLEs, the administrative liaison and the contact person should set up a ***meeting*** to discuss the details of the SWLE program. If the targeted worksite received introductory information about SWLEs by mail, the liaison should *call* the contact person to arrange a ***meeting***. When arranging the meeting, consider the following:

- In order to take up as little of the contact person's time as possible, meetings should be held at the worksite.
- The purpose of the meeting is for the SWLE administrative liaison to explain the program and its benefits to key people at the worksite. In this and subsequent planning meetings, all people at the worksite who will be involved in implementation of the SWLE need to be included. In order for the program to succeed, there must be a genuine commitment from the very top levels of participating companies.
- It may be appropriate to invite the union steward to participate in the meeting. Union participation may strengthen the effectiveness of the SWLE program.

During the meeting, the administrative liaison should—

- summarize the purpose of the SWLE program, emphasizing that students will be looking for examples of *applied academics* in the workplace;
- discuss the types of *hands-on* activities that SWLE students might be able to perform;
- point out how the visit will benefit the worksite in the long run by providing opportunities for enriching the educational experiences of their future workers;
- share written materials about the SWLE program, including a sample Individual Academic Observation Plan, SWLE Agreement, Worksite Mentor's Student Performance Evaluation Form, and program guidelines;
- describe how students will apply in the classroom what they learn during the SWLE;
- ask the worksite representatives if they would be interested in providing students with SWLE placements and, if so, determine what types of opportunities they could provide for students;
- share the following suggestions, preferably in writing, for use by the worksite contact people who will *recruit* employees to work with students:
  - ✓ Hold an information session during which potential worksite mentors can learn about SWLEs. Invite other employees who have participated in other school-worksite partnerships to share their experiences and insights.
  - ✓ Be clear about the time commitment required.
  - ✓ Provide support for employees who may be concerned about employee liability for student accidents.
  - ✓ Explain that teachers will stop in to observe and to support their efforts.
  - ✓ If possible, provide an incentive or reward for participation (e.g., acknowledgment on evaluation, special company recognition).
- request background information about the worksite (e.g., profile sheet or brochure); and

- supply the name and daytime phone number of the teacher who will be calling the worksite contact person to finalize SWLE arrangements.

The conversations with worksite representatives should also include discussions about the ***roles and responsibilities of the SWLE worksite mentors, administrative liaison, teachers, and students.*** The following lists provide options that representatives of schools and worksites may wish to consider.

Worksite contact person roles and responsibilities might include the following:

- Assign students to worksite mentors who are interested in assisting the students.
- Provide worksite mentors with information about the SWLE program and the student experiences described in the Individual Academic Observation Plans.
- Notify the administrative liaison of concerns or difficulties.
- Complete an SWLE Program Evaluation.

Worksite mentor roles and responsibilities might include the following:

- Speak with a teacher team member about the specific SWLEs to be conducted.
- Assist one or more students in attaining the goals of their Individual Academic Observation Plans.
- Complete Worksite Mentor's Student Performance Evaluation Forms.
- Complete the SWLE Program Evaluation.
- Communicate with teachers and students.
- Help to publicize the benefits of the SWLE program to other worksites.

Student roles and responsibilities that may be discussed by the liaison with worksite personnel might include the following:

- Actively participate in SWLE activities, asking questions and paying close attention to what is said and demonstrated.

- Follow school policies at all times–SWLE activities are an extension of the school program.
- Follow all policies of the worksite (e.g., clothing, safety, time schedule).
- Meet any prerequisites of the particular worksite (e.g., age, TB tests).
- Be willing to treat the situation like a real job (e.g., attendance, punctuality, appropriate dress, dependability, reliability, a positive disposition).
- Follow through with all required paperwork (e.g., logs, reports, evaluations).
- Complete all SWLE assignments given by the teacher team.
- Sign the SWLE Agreement.
- Obtain the signature of a parent or guardian on the SWLE Agreement, if needed.
- Contact the worksite mentor *and* a teacher in case of illness.
- Write thank-you letters to worksite mentors and others who may have helped during the SWLE.

Teacher roles and responsibilities that may be discussed by the liaison with worksite personnel might including the following:

- Collaborate with team members.
- Design Individual Academic Observation Plans.
- Contact potential SWLE worksite participants who have been identified by the administrative liaison to arrange for student placements.
- Match students with appropriate worksites.
- Develop written materials.
- Prepare students for worksite visits.
- Observe students at each SWLE site.
- Assess the degree to which students attain their SWLE desired outcomes.
- Complete an SWLE Program Evaluation.

- Incorporate worksite learning experiences into the curriculum.
- Follow up with contact people at worksites on a regular basis after the SWLEs.

Administrative liaison roles and responsibilities that may be discussed with worksite representatives might include the following:

- Publicize the SWLE program.
- Address concerns that are raised by participating work site representatives, teachers, students, and parents/ guardians.
- Conduct an evaluation of the SWLE program and share results with all participants.

The roles and responsibilities that worksite and school representatives agree upon should be written into the SWLE Agreement, which is described in Step 11.

Step 9: Arrange for Student Placements at Worksites

After the administrative liaison has located a pool of worksites interested in providing students with high-quality worksite learning experiences, teacher team members need ample time to contact worksite representatives to arrange specific SWLE placements. To prepare teachers for the steps that follow, the administrative liaison should meet with participating teacher team members to talk about what was discussed during the initial conversations with worksite contacts. The liaison should give teachers all gathered information about the worksites, including copies of Worksite Contact Sheets.

NOTE: Administrators and the liaison should be aware that many teachers feel uncomfortable contacting worksites. Teachers might be encouraged to develop a script or other aid to use when calling on worksite contact people.

Once they familiarize themselves with the information about the worksites, teacher team members will need to determine what types of experiences each worksite can provide for their students. In order to do this, one of the team members needs to *call* the contact person or *arrange a meeting* with that person. Due to time constraints of teachers and worksite contact people, most SWLE placement arrangements are made over the phone. Teachers should make an effort not to duplicate information that was discussed in the initial meeting between the liaison and worksite representatives.

During discussions with worksite contact people about student placements, teachers should do some or all of the following:

- Describe the experiences teachers hope SWLE students will have at the worksite.
- Get the names, titles, and direct phone numbers of employees who will be assisting and supervising students at the worksite, if possible.
- Stress that selection of appropriate worksite mentors is critical to the success of the experience for students. Mentors should understand the goals of the visit and be willing to assist students in attaining their desired outcomes.

"Several mentors seemed unsure of what to have students do. If we had been able to meet with mentors directly, I believe the students' experiences would have been enhanced."

SWLE Pilot Teacher

NOTE: Pilot project participants found that the quality of students' experiences was related to whether or not a teacher team member spoke directly with students' worksite mentors. When there was no prior contact, mentors were unclear about their roles and student needs/goals.

"One place I went to had me work for a few hours and then told me to just hang around and watch TV. I didn't mind, but I would have preferred a new experience."

SWLE Pilot Project Student

- Determine the number of student placements the worksite can provide.
- Determine the dates, times, and activities of the SWLE.
- Inquire about appropriate, safe dress that is required for the worksite. Find out if students will need to provide safety glasses or hard hats or wear certain clothing.
- Determine whether students should be aware of environmental safety issues (e.g., X rays, fumes, pesticides).
- Request pre-visit background information, which might include what the companies do, how they are structured, and how academics may be applied on the job. If they have a profile sheet, and if it was not already given to the administrative liaison, request that a copy be mailed or faxed to one of the teachers.
- Explain that an SWLE Agreement will be sent to the worksite representatives for appropriate signatures.
- Get directions to the worksite, if needed.

When possible, a teacher team member should also speak directly with the worksite mentor to discuss the SWLE. In addition to covering some of the points described above, the teacher should discuss ways in which the worksite mentor can make the experience meaningful for students. Several examples follow:

- Mix talking with demonstrating. When talking about a process, procedure, or activity, find a way for students to *see* what you mean.
- Because people learn more by doing than by hearing, provide opportunities to *do* hands-on activities. When possible, ask the students to observe how math, science, and/or communications is used in the activity they are performing. In addition, help them understand how the work they are doing relates to other work being done at the site.
- SWLE students will *ask questions* of the worksite mentor. In addition, mentors should ask questions of students (e.g., What do you think is happening here? Where do you think the product goes after it leaves this department? What communication skills do you think this worker

needs in order to do her job? How do you think computers affect this job?).

- Ask other employees to talk with students about the work that they do.
- Help SWLE participants feel a part of the company by inviting them to eat in the cafeteria or go on break with other employees.

Teachers should *record* SWLE information about each worksite on a separate Worksite Contact Sheet. An example is provided in Appendix E, pp. 91-93.) Later, contact sheets can be copied for other team members and the administrative liaison. They can be used for follow-up correspondence and to document SWLE activities.

NOTE: Pilot teachers found it helpful to make mailing labels that include names and addresses of all worksite mentors. Separate labels were made for worksite contact people. These labels can be used for a variety of purposes including attaching to student worksite assignments, addressing thank-you letters, and mailing evaluation results.

Step 10: Match Students with Worksites

In making matches, it is clear that the worksite assignments should correspond with the student's occupational focus. However, teachers should keep in mind that placements can include a wide variety of related worksites. For example, it might be appropriate for students in an agricultural technology program to observe farming, food processing, and agricultural mechanics, to name just a few areas. Students in health care might observe in a variety of hospital departments as well as social service agencies and private medical practices. Culinary arts students might visit fast food, buffet, full-service, and catering businesses.

Pilot teachers at different schools used different methods for matching students with worksites. Several examples follow.

The teacher team at one school developed a chart that was organized similarly to the one below. The chart included spaces for the names of students who could be accommodated at each site during each SWLE visitation day. The teachers worked together to assign students to the most appropriate worksites. They made copies of their completed chart for students.

NOTE: There were several worksites to which no students were assigned. Teachers contacted representatives at those worksites to thank them for their willingness to help and to ask for different types of assistance (e.g., provide a guest speaker in a class).

	Tuesday SWLE	**Wednesday SWLE**	**Thursday SWLE**
worksite #1's name address contact person's name phone number	1. student A's name 2. student K's name	1. student C's name 2. student L's name	1. student R's name 2. student E's name
worksite #2's name address contact person's name phone number	student C's name	Worksite cannot host an SWLE on this day	student A's name

The teacher team at another school decided that it would be best if students chose their own SWLE worksites. Teachers provided students with a list of 20 worksite options. Each student signed up for three different worksites. Students also listed several second choices–in case their first-choice worksites were full. Teachers then prepared the final SWLE assignment sheet, which was organized similarly to the chart below. They made copies of their completed chart for students.

	Tuesday SWLE	**Wednesday SWLE**	**Thursday SWLE**
worksite #1's name address contact person's name phone number	1. student A's name 2. student K's name 3. student Z's name	1. student C's name 2. student D's name 3. student F's name	1. student L's name 2. student B's name 3. student T's name
worksite #2's name address contact person's name phone number	1. student A's name	1. student A's name	Worksite cannot host an SWLE on this day
worksite #3's name address contact person's name phone number	1. student R's name 2. student S's name	1. student E's name 2. student Z's name	1. student A's name 2. student K's name

In addition, once they received their SWLE assignments, the students at that school were responsible for arranging a meeting with their worksite mentors. This pilot team thought it would be important that the students take responsibility in confirming their own SWLE activities.

NOTE: Timing is important. Students need at least two weeks to contact and meet with worksite mentors.

The purpose of the pre-SWLE meeting is to clarify for the student and the mentor what the student will be doing at the worksite during the SWLE. At the meeting, which is held at the worksite, the student and worksite mentor should do the following:

- Get acquainted.
- Discuss the purpose of the SWLE.
- Review the Individual Academic Observation Plan.
- Discuss specifics of the SWLE, including the date and starting/ending times, what the student will be doing, safety gear or clothing the student should provide, where to report, and what the student should do for lunch.
- Ask the worksite mentor to sign the SWLE Agreement (optional).

NOTE: To facilitate accurate communication, teacher team members may want to write a statement for the student to share with the worksite mentor. It could include a brief statement of the goals of the SWLE program, the general purpose of the Individual Academic Observation Plan, and suggestions for specific things that the student will need to know about (e.g., safety gear or clothing and what to do about lunch).

NOTE: One pilot teacher team gave each student several business cards belonging to one of the teachers. Students were instructed to give a card to the worksite representative (e.g., mentor or contact person) when they met. They were also instructed to bring the card of the worksite representative with whom they met back to the teacher. This provided the teacher with documentation that the student had actually met with the worksite representative. It also provided him or her with the name and phone number of someone to call in case questions remained after the meeting with the student.

Step 11: Write SWLE Agreements

After an *oral* agreement has been reached between all SWLE participants, a member of the teaching team and/or the administrative liaison should follow up in *writing* to confirm the arrangements that were discussed. A formal SWLE Agreement should be written. If desired, it *can be* signed by some or all involved parties–the worksite contact person, the worksite mentor, one or more teachers, the administrative liaison, the student, and a parent/guardian.

Written agreements between the school, the worksite, and the students should outline—

- information about the program;
- information about the student;
- desired student outcomes and activities, which may be listed on an Individual Academic Observation Plan and attached to the SWLE Agreement; and
- roles and responsibilities of the teachers, administrative liaison, worksite contact person, worksite mentor, and student.

Steps 1, 2, and 8 include lists of possible roles and responsibilities of the SWLE coordinators, facilitators, and participants.

Once the SWLE Agreements have been signed by all involved parties, the administrative liaison should distribute copies to the participating teachers, students, and worksite personnel.

In addition, the Parent/Guardian Emergency Consent Form should also be completed and signed. Copies of this sheet should be given to the appropriate worksite contact person. (An example is provided in Appendix C, pp. 81-82.)

An example of an SWLE Agreement is provided in Appendix B, pp. 75-77.

Step 12: Develop Written Materials

Teacher team members should develop the written materials that will be used to structure and implement the SWLEs. Some or all of the following materials might be developed. (The appendix noted beside each item contains examples that can be personalized and adapted for use during SWLEs.)

- SWLE Student Log (Appendix F, pp. 110-111)
- Student Self-Evaluation Form (Appendix G, pp. 122-123)
- Questions That Students Might Ask Employers and Employees (Appendix F, pp. 97-98)
- Student Observation Checklist (Appendix F, pp. 99-100)
- Student Worksite Observation Sheet (Appendix F, pp. 101-109)
- Student Evaluation Form for the SWLE Program (Appendix H, pp. 122-123)
- Teacher Observation Form (Appendix G, pp. 118-119)
- Worksite Mentor's Student Performance Evaluation Form (Appendix G, p. 124)
- Outline of the Thank-You Letter from Students (Appendix I, p. 130)

HINT: Teacher teams may want to ask students to help develop some or all of the written materials that they will use during SWLEs.

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Step 13: Prepare Students for Worksite Visits

It is important that teachers let students know what they can expect at each worksite. In addition to discussing actual SWLE purposes, procedures, and activities, some or all of the following topics might be included in pre-visit discussions and activities:

- Company organization and hierarchy
- What to expect at worksites (e.g., atmosphere, procedures, equipment)
- Appropriate dress
- Safety procedures and equipment
- Work ethics
- Answering questions from workers (e.g., What is your career goal?)
- Cultural diversity (e.g., interacting with people from different cultures)
- Expected behavior
- Effective communication with adults (e.g., verbal and nonverbal communication, working under supervision, asking questions)
- Technical terminology
- Guidelines for recording information and reflections on SWLE Student Log sheets, worksheets, and/or checklists
- Transportation to worksites
- Meals (e.g., eat breakfast before arriving, pack or buy lunch)
- Absence procedure (e.g., speak with worksite director and teacher directly if unable to attend SWLE due to illness or emergency)
- Evaluation of student performance (by self, mentor, and teacher)

NOTE: Teacher teams may wish to develop case study and role-play situations to provide students with opportunities to practice in simulated workplace settings.

Step 14: Observe Students at Worksites

At least one member of the teacher team should visit each student during the SWLE to—

- observe students at worksites,
- discuss each student's worksite performance with the student, and
- discuss each student's worksite performance with the worksite mentor.

Visitations should be done early enough in the program that adjustments can be made if needed. If appropriate, additional calls or visits should also be made to the contact people and worksite mentors to verify that students are meeting the program expectations and that the program is running smoothly.

Teachers should use the Teacher Observation Form to document student activities and record observations. Observation Forms provide students with important feedback, as discussed in Step 15. It may also be helpful to note any needs for additional classroom instruction on the form. (An example is provided in Appendix G, pp. 118-119.)

Step 15: Assess Student Attainment of SWLE Desired Outcomes

To perform this step, teacher team members must be aware of what students observed at worksites and must be prepared to assess students' attainment of the desired outcomes listed in their Individual Academic Observation Plans in meaningful ways. To take advantage of "teachable moments" that will occur as a result of students' participation in SWLEs, assessment should be done in a timely fashion. Specific assessment suggestions are provided in Step 5.

Pilot teacher teams chose to assess students in different ways. Descriptions of two different assessment strategies follow.

One pilot team did SWLEs for a full week. On Monday, they spent time preparing students for SWLEs by having discussions and role plays on topics that were mentioned in Step 13. Students did full-day SWLEs on Tuesday, Wednesday, and Thursday. Friday morning was reserved for assessment, and thank-you letters were written in the afternoon. For assessment, they chose to have students do the following:

- Complete a Self-Evaluation Form similar to the one provided in Appendix G, pp. 114-115.
- Review the Worksite Mentor's Student Performance Evaluation Form (if available) and Teacher Observation Form.

  NOTE: To allow for individualized, high-quality interactions between students and teachers, it may be preferable to share this information during one-on-one conferences.
- Complete a Student Evaluation Form similar to the second example in Appendix H, pp. 122-123.
- Discuss what they experienced at their worksites
- Discuss and reflect upon what students learned about the use of academics at their worksites
- Make recommendations for modifying the SWLE program
- Turn in their SWLE notebooks, which included evaluations, worksheets, logs, and checklists

Another pilot team spent 3 days on SWLEs. Students met with their teacher team at the school each morning to prepare for the day's SWLEs (as described in Step 13). They went to a worksite in the afternoon. On the second and third mornings, discussions also included what happened during the previous day's worksite visit. After the third day, the teacher team members and students discussed their overall experiences and summarized their findings. In addition to completing a log, worksheets, and a self-evaluation, students worked in groups to prepare written reports concerning how academics were used in the workplace. Each team chose a specific topic on which to report. The reports were also given orally to classmates.

Of course, in both of these situations, discussion about SWLEs and student evaluation did not end that day. Much of what students learned at worksites–about themselves and about how academics are used at work–was brought up again and again. To pilot teachers' surprise and delight, *students* frequently and energetically cited worksite examples and provided work-related insights in both vocational and applied academic classes.

Step 16: Incorporate Worksite Learning Experiences into the Curriculum

Now that students have observed the use of academics at worksites, it is up to the teaching team to help students incorporate what they have seen into learning experiences. This should involve the inclusion of new teaching methods (e.g., interdisciplinary projects, team teaching) and activities (e.g., group projects, problem-based learning, hands-on activities) and may involve curriculum development. Refer to ***Making Connections: A Curriculum Ideabook for Teachers of Applied Academics and Industrial & Engineering Systems***, described in the Project Overview on pp. i-ii, for further information. Don't let the title of this resource fool you–much of the information and ideas it provides are generalizable to teachers of all areas.

"For the rest of the year, students related back to their SWLE experiences in both academic and vocational classes."

SWLE Pilot Teacher

"I found that using some of the forms that my students gathered at worksites helped increase student motivation. It also helped to validate the credibility and applicability of what I was teaching in my applied math class."

SWLE Pilot Teacher

Step 17: Evaluate the SWLE Program and Share Results

The administrative liaison is responsible for writing, distributing, and collecting evaluation forms; synthesizing the evaluation results; and sharing an evaluation summary with all participants and others as appropriate.

When *writing* evaluation forms, the following should be considered:

- SWLE Program Evaluations should assess the effectiveness of the program from the perspective of participating worksite representatives, teachers, and students. (Examples are provided in Appendix H, pp. 121-128.)
- Evaluation forms should be brief and should relate directly to the SWLE desired outcomes.
- Evaluation forms that are mailed should include a stamped, self-addressed return envelope.

After evaluations are *collected*, the administrative liaison should *summarize* the evaluation responses as soon as possible. It may be appropriate to recommend modifications of the SWLE program to reflect input from the evaluations.

Distributing an evaluation summary is an important strategy for getting publicity and support for the current and future SWLEs.

- A summary of the SWLE program evaluations should be mailed or hand-delivered to each worksite that participated in SWLEs. By doing this, worksite partners get the message that their input was valued. In addition, the evaluation provides documentation that, as a result of their participation, companies helped students attain the desired outcomes of the program. It is likely that worksites will use this information to publicize their contributions in order to bolster their images both with employees and with the public. Furthermore, when they review the evaluation summary, participants will learn of the responses of other SWLE worksites. When they learn that others were also satisfied with the SWLE program, they will be more inclined to participate in SWLEs and other school-worksite efforts in the future.

NOTE: To protect the confidentiality of each respondent, individual responses should not be reported. Instead, the summary should comprise an *aggregation* of evaluations from each category of evaluators (e.g., worksite contact people, worksite mentors, students, and teachers). For example, evaluation responses of each worksite contact person should be combined with the responses of the other worksite contact people. The combined results, or averages, should be included in the summary. Comments made by individual respondents may be used as long as the names are not included (unless written permission is obtained).

- A summary of the SWLE program evaluations should be distributed to school administrators, school board members, advisory committee members, teachers, counselors, and others. By sharing this information, the program's success will be documented to those who can provide support and approve funding for future SWLEs, as well as teacher externships, student internships, and other work-based programs.

Step 18: Recognize Contributions of Worksite Representatives & Acknowledge Appreciation

Schools need to provide recognition and express appreciation for the contributions that participating worksites have made to the school, teachers, and students. Although each school will need to decide how to recognize and thank its own participating worksites, the following suggestions may be of help:

- After SWLEs are completed, write *letters of thanks* to SWLE worksite representatives as follows:

  ✓ An administrator or the administrative liaison should send a letter, on behalf of the school, to the primary contact person and/or CEO at each worksite.

  ✓ It may also be appropriate for teachers to send a letter to the contact people and worksite mentors. Letters can include students' post-SWLE comments and insights.

  ✓ Students should send a letter to each of their worksite mentors.

  Typed letters are preferable to handwritten notes because these letters are often placed in personnel files. A personal, handwritten note can be written at the bottom of the letter, on a self-adhesive note, or on a separate sheet, if desired. In addition, copies of letters may be sent to the personnel directors, department managers, directors, and/or company presidents, as appropriate.

- Give a *certificate of appreciation*, or another type of recognition, to the head of each participating worksite. This is a way to express thanks for the support that the company has given to the school. If possible, frame the certificate.

- Invite the worksite personnel who assisted students to be recognized at an appreciation *ceremony, reception, or dinner.* This type of program can be planned by students and attended by administrators, school board members, teachers, and students who participated in SWLEs. Perhaps SWLE recognition could be a part of the VSO's annual appreciation event.

Step 19: Follow Up With Contacts at Worksites on a Regular Basis

By keeping in touch with worksite representatives after the SWLE, the administrative liaison and teachers are keeping the door open for future school-worksite partnership activities. Schools may choose from a wide range of options for keeping in touch, including the following:

- Add the names of worksite contact people to the school newsletter mailing list.
- Invite worksite contact people to school activities such as school open houses, vocational student organization (VSO) events, and special programs.
- Ask worksite representatives to provide information during job fairs.
- Make informal phone calls to keep in touch and to let worksite contact people know about new programs and projects and changes in existing ones.
- Put worksite contact people on the school's public relations mailing list.
- Invite worksite representatives to participate in other partnership opportunities (e.g., student internships and co-ops, teacher externships).
- Correspond with worksite representatives to describe ways in which the curriculum has been changed to more accurately reflect the workplace.

In addition, teachers may wish to ask worksite partners to share their expertise with students in a wide variety of ways including the following:

- Invite worksite contact people to the school to see the facilities and review the curriculum for potential academic applications.
- Invite worksite contact people to the school to shadow teachers or students for all or part of a day. As an incentive for companies to participate, invite the media.
- Send photographs of students doing projects, descriptions of class assignments, and/or a copy of the curriculum with a letter or note explaining how the information gained during the SWLE has been used.

- Invite contact people and others from participating worksites to participate in other school-worksite partnerships (e.g., career day activities, judging VSO contest events, serving on advisory committees).
- Invite contact people and others from participating worksites to be guest speakers.
- Invite contact people or others from participating worksites to serve as external judges for a class-related competition.
- Invite contact people or others from participating worksites to act as external evaluators for student projects.
- Discuss the possibility of having worksites provide placements for future teacher externship and student worksite learning experience activities.

Conclusions and Recommendations

SWLEs take a lot of time and energy to organize. However, many teachers have concluded that the results make it worth the effort. Here are a few of their suggestions, which may be helpful as your team plans SWLEs:

- SWLEs are best when teacher team members participate in teacher worksite externships *first*. It is critical that teachers have the time to learn about how academics are used in the workplace *before* they plan SWLEs. The primary reasons for this are that—
  - ✓ teacher team members will have common understanding of the worksites available to their students,
  - ✓ teacher team members will be more likely to work as a cohesive team, and
  - ✓ during SWLEs, teachers are too busy observing students to learn about how academics are applied at worksites.
- This guidebook contains a lot of different ideas. Each educational situation is different, so pick what works best for you.
- Your SWLE program probably won't be perfect the first time. Hopefully, though, with the suggestions provided in this guidebook, you won't hit major pitfalls. Try something out this year with the thought of making improvements in future years.

BEST WISHES FOR A SUCCESSFUL SWLE PROGRAM!

"The academic teachers benefited as much from externships and SWLEs as the students."

SWLE Pilot Teacher

"It was a very good experience and I learned a lot. I would recommend that anyone who has a chance to do an SWLE should do it."

SWLE Pilot Student

"The SWLE was a very worthwhile experience. It was fun, but at the same time I learned a lot from it."

SWLE Pilot Student

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Appendix A

Individual Academic Observation Plan

The purpose of the Individual Academic Observation Plan is to record the SWLE participants' desired outcomes, the activities in which they will participate at one or more worksites, and the way(s) in which they will be evaluated. Information about Individual Academic Observation Plans was covered in Step 5.

On the following pages, you will find—

- an outline of a form for you to use when developing Individual Academic Observation Plans, and
- the Individual Academic Observation Plan that was developed by pilot teachers at Miami Valley Career Technology Center. You may wish to use it as an example.

Student Worksite Learning Experience
Individual Academic Observation Plan

Student's Name _____

Student's Vocational Program _____

Teacher Team Members _____

Desired Outcomes of the Student Worksite Learning Experience:

1.

2.

3.

Student Tasks and Activities at Worksite(s):

1.

2.

3.

Evaluation of Desired Outcomes:

1.

2.

3.

Additional Information:

The completed Individual Academic Observation Plan should be attached to the SWLE Agreement. Copies of the Agreement will be distributed to all parties after it is signed.

Miami Valley Career Technology Center SWLE
Individual Academic Observation Plan

Student's Name _____

Student's Vocational Program _____

Teacher Team Members _____

Desired Outcomes of the Student Worksite Learning Experience:

1. Students will gain an understanding of the math, science, and communication used in the agriculture industry.
2. Students will determine if they are studying the career they wish to pursue.
3. Students, Miami Valley Career Technology Center, and industry will build a solid working relationship to provide skilled employees.

Student Tasks and Activities at Worksites:

1. Tour each worksite to gain a general understanding of the company.
2. Observe and interview employees on the job to determine how math, science, and communication are used.
3. Perform hands-on tasks that include the use of math, science, and communication concepts.

Evaluation of Desired Outcomes:

1. Completed journals
2. Participation during debriefing session
3. Follow-up communication with employers

Additional Information:

The completed Individual Academic Observation Plan should be attached to the SWLE Agreement. Copies of the Agreement will be distributed to all parties after it is signed.

Appendix B

SWLE Agreement

The purpose of the SWLE Agreement is to outline the roles and responsibilities of all parties involved in SWLEs. This agreement is a way to apprise the parties of the importance of their contributions to the success of each student's worksite learning experiences. Agreements can be written by the administrative liaison and/or teacher team members.

The SWLE Agreement may be signed by the school administrative liaison, at least one member of the teaching team, the worksite contact person, the worksite mentor, the student, and/or the parent/guardian.

Copies of the signed SWLE Agreement should be distributed by the administrative liaison to all involved parties.

Additional information about SWLE Agreements was covered in Step 11.

Student Worksite Learning Experience (SWLE) Agreement

Student's Name and Home Phone Number _____
Student's Vocational Area _____
Administrative Liaison's Name and Phone Number _____
Teacher's Name and Phone Number _____
Worksite _____
Worksite Contact Person's Name and Phone Number _____
Worksite Mentor's Name and Phone Number _____
Date(s) of Student's Worksite Visit(s) _____
Starting Time _____ Ending Time _____

Overview

In an effort to provide students with academic experiences that relate to the world of work, _____ School has developed a two-phase program. In the first phase, teams of teachers participated in externships–observing ways in which math, science, and communications are used at local worksites. In the second phase, students will participate in student worksite learning experiences (SWLEs) aimed at increasing opportunities for them to observe ways in which workers in their chosen area of study use math, science, and communications skills.

Agreement

The success of the SWLE program depends on the contributions of all participating parties. Each of the participants agrees to take on the responsibilities that are described below.

When participating in an unpaid SWLE, the student agrees to—

- provide adequate transportation to and from the worksite,
- maintain attendance and punctuality at all times,
- dress appropriately and safely for the worksite,
- discuss any worksite problems immediately with a member of the teacher team,
- demonstrate a willingness to learn throughout the SWLE program,
- complete the activities, assignments, and paperwork required through the SWLE program (as described in the attached Individual Academic Observation Plan), and
- call the worksite mentor and a member of the teacher team as early as possible if an emergency or illness prevents attendance at the worksite.

The parent or guardian agrees to—

- allow the student to participate in the SWLE as described in this Agreement,
- assume responsibility for the personal conduct of the student,
- work with the student to arrange transportation to and from the worksite,
- absolve the teachers, worksites, and the Board of Education of all responsibility involving incidences during SWLEs,
- ensure that the student has appropriate apparel and safety equipment for the worksite, and
- encourage and support the student to succeed in the SWLE program.

The teacher(s) agrees to—

- develop an effective Individual Academic Observation Plan,
- orient the student to SWLE program expectations,
- be available to address the student's questions and concerns,
- observe the student at the worksite,
- discuss the student's performance with the worksite mentor, and
- assess the student's attainment of SWLE desired outcomes, as described in the Academic Observation Plan.

The administrative liaison agrees to—

- address concerns raised by participating worksite representatives, teachers, students, and parents/guardians, and
- conduct an evaluation of the SWLE program and distribute a summary of results to all participants.

The worksite contact person agrees to—

- assign the student to a mentor who is interested in assisting the student,
- provide names of worksite mentors to the administrative liaison or teacher,
- provide worksite mentors with information about the SWLE program and the student experiences described in the Individual Academic Observation Plan (attached),
- notify the administrative liaison of concerns or difficulties, and
- complete a written evaluation of the SWLE program.

The worksite mentor agrees to—

- provide the student with an overview of the worksite and its operations,
- provide the student with appropriate safety information,
- provide opportunities for the student to have the experiences specified in the Individual Academic Observation Plan (attached),
- assist the student throughout the SWLE visit,
- notify the worksite contact person if difficulties arise,
- discuss the student's performance at the worksite with the coordinating teacher, and
- complete a written evaluation of the SWLE program.

The Individual Academic Observation Plan, which is attached to this SWLE Agreement, should be considered to be page 3 of this Agreement.

It is further understood and agreed that many details that are inherent to the SWLE program cannot be entirely foreseen. Each party, in cooperation with the other parties, will give his or her best efforts in reviewing and making decisions regarding these details as they arise.

The undersigned understands and agrees to the conditions and terms of the SWLE Agreement as stated above.

_____

Worksite Contact Person Signature and Date

_____

Worksite Mentor Signature and Date

_____

Student Signature and Date

_____

Parent/Guardian Signature, Relationship to the Student, and Date

_____

Teacher(s) Signature(s) and Date

_____

Administrative Liaison Signature and Date

cc: student, parent/guardian, teacher(s), administrative liaison, worksite contact person, worksite mentor

Appendix C

Communication with Parents

Introductory Letter to Parents/Guardians

The purpose of the introductory letter is to let parents or guardians know that students will be participating in SWLEs. It is recommended that an introductory letter be sent early in the academic year if selection criteria are being used. This will provide parents with opportunities to support teachers in maintaining high standards for SWLE participants.

It is not necessary to send an introductory letter if the purpose of the SWLE program is stated on the consent form (described below) and if teacher team members believe that no further explanation is needed.

Parent/Guardian Consent Form

The purpose of the Parent/Guardian Consent Form is to provide the school and worksites with permission for students to participate in SWLEs, travel to worksites, and acquire emergency medical treatment if necessary. Copies of this sheet should be provided to appropriate worksite contact people; the original should be kept on file by the teacher or administrative liaison.

Introductory Letter to Parents/Guardians

(SCHOOL LETTERHEAD)

Dear Parent/Guardian,

This year, Miami Valley's junior Agri-Technology class will be involved in a Student Worksite Learning Experience (SWLE) that will provide students with the opportunity to visit agriculture-related businesses. They will be observing how math, science, and communication skills are used on the job. Your son or daughter will visit three different worksites on three consecutive days. This worksite experience emphasizes the applied academics that will help your son or daughter become a more successful employee.

In order to participate in this worthwhile experience, your son or daughter must meet the following expectations:

- Behavior: no office referrals
- Grades: C+ or better in ALL classes
- Attendance: 95% or better

We want our students to earn this privilege to participate in order to reinforce the importance of this activity. It is our goal to prepare your son or daughter with the best learning experience we can provide. It is our hope that you will support us in this effort.

Please read the statement below and sign it to assure us that you understand the concept of the SWLE and our expectations. Return the lower portion with your son or daughter **no later than Friday, September 30.**

Thank you for your cooperation and support,

Agri-Technology Team Members:

Waid Lyons, Agri-Technology Teacher
Larry Seibel, Agri-Technology Teacher
Beth Fisherback, Applied Math Teacher
Julie Bains, Applied Communications Teacher

I, _____, understand the SWLE activity my son/daughter,

_____, has the opportunity to participate in this year. I also understand the following expectations for participation:

- Behavior: no office referrals
- Grades: C+ or better in ALL classes
- Attendance: 95% or better

Parent/Guardian's Signature _____

Student's Signature _____

Vocational and/or Applied Teacher's Signature(s) _____

Parent/Guardian Consent Form

Your son or daughter will be participating in the _____ School's Student Worksite Learning Experience program during the month of October. Students will make three full-day visits to local worksites to observe ways in which math, science, and communications are used in the workplace. Their visit will be supervised by one or more employees at the worksite. Please complete the following consent form so that your son or daughter will be able to participate.

Permission to Participate in Student Worksite Learning Experience Visits

_____ may make SWLE visits to three worksites this October.
(student's name)

Permission to Travel to Worksites

I grant permission for my son/daughter to travel by public transportation.

❑Yes ❑No

I grant permission for my son/daughter to travel using his/her own car.

❑Yes ❑No

I grant permission for my son/daughter to travel in a classmate's or teacher's car.

❑Yes ❑No

Photo Release

I grant permission for my son/daughter to be photographed for promotional and educational purposes while participating in SWLEs.

❑Yes ❑No

Medical Authorization

Should it be necessary for my son/daughter to have medical treatment while participating in SWLE visits, I hereby give the school district and/or worksite personnel permission to use their best judgement in obtaining medical service for my son/daughter, and I give permission to the physician selected to render whatever medical treatment s/he deems necessary and appropriate.

❑Yes ❑No

For the duration of the SWLE program, permission is also granted to release emergency contact/medical history to the attending physician or to worksite personnel, if needed.

❑Yes ❑ No

Parent/Guardian's Name _____

Address _____

Daytime Phone Number _____

Evening Phone Number _____

Emergency Contact Person's Name _____

Emergency Contact Person's Phone Number _____

Family Doctor _____

Doctor's Phone Number _____

If your son or daughter requires any special accommodations due to medical limitations, allergies, disabilities, dietary constraints, or other restrictions, please explain.

_____

_____

_____

_____

_____

_____

_____

_____

Copies of this Consent Form should be provided to all appropriate worksite contact people; the original should be kept on file by the teacher or administrative liaison.

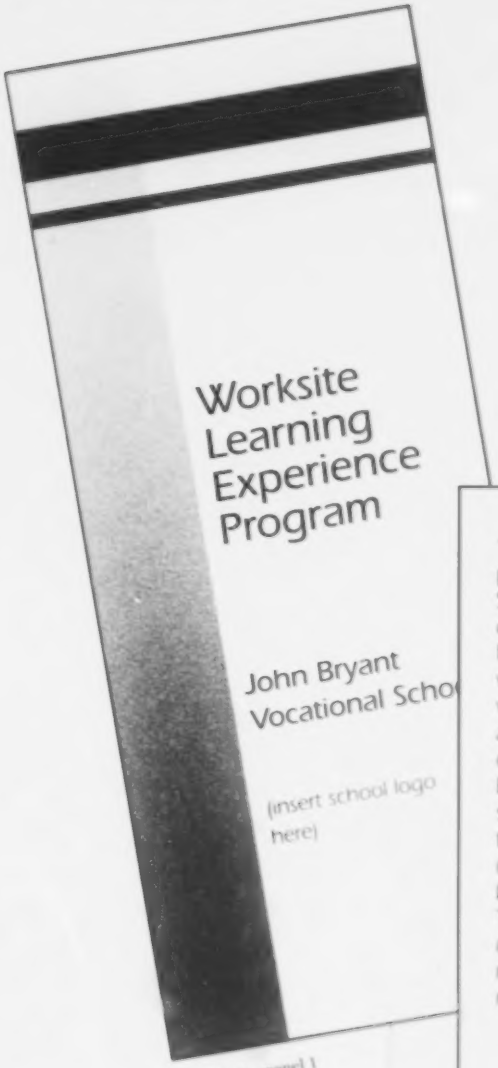
This form was adapted from the Career Exploration Guide, *Northwest Regional Educational Laboratory.*

Appendix D

Promotional Materials

The purpose of promotional materials is to assist the administrative liaison, teachers, and others in publicizing and gaining support for the SWLE program. As described in Step 6, the administrative liaison is responsible for developing the following materials:

- Promotional Brochure
- Letter of Introduction
- Confirmation Letter to Worksite Mentors
- Pre-SWLE Press Release
- Post-SWLE Press Release
- Newsletter Article



front—panel 1

"We were hesitant to take part in the externship and SWLE programs because we didn't know what to expect. Now that we've participated, we have seen the impact we've had on both students' and teachers' understandings of workplace requirements. Even though they spent a short time at the worksite, they left with much clearer ideas about what it takes to be a successful employee. The teachers got some good ideas for modifying the curriculum to more accurately reflect the workplace."

John Taylor
ABC Computers

"The SWLE program has really helped our vocational students see how important math, science, and communications are. SWLEs would not be possible without the assistance and support of local business and industry."

Jan Ortega, English
Wayne Kelp, Construction

front—panel 2

John Bryant Vocational School began the Worksite Learning Experience Program by participating in a pilot project sponsored by the U.S. Department of Education and conducted by the Ohio Department of Education and the Vocational Instructional Materials Lab at The Ohio State University.

For further information contact:

Mary Smith,
Administrative Liaison
555 Fourth Street
Dayton, Ohio 44332
Phone: (213) 555-1111
Fax: (213) 098-7654

front—panel 3

About the Program

The Worksite Learning Program involves two components. First, teams of vocational and academic teachers participate in Teacher Worksite Externships. They visit local business and industry to observe ways in which math, science, and communications are used at worksites. Upon their return, they work together to modify the curriculum and develop hands-on teaching strategies that reflect real-life situations in the workplace.

Second, students participate in Student Worksite Learning Experiences (SWLEs). They visit local business, industry, and community-based organizations to see for themselves how employees use math, science, and communications skills on the job.

Students and teachers can't do it alone. They need the help of local business and industry.

back—panel 1

We Need Your Help!

The vocational and academic teachers at John Bryant Vocational School are asking local business, industry, and community-based organizations to contribute a small amount of time to host students and/or teams of teachers to make worksite visits.

What is Involved?

Business, industry, and organizational participants will be asked to do the following:

- Designate a contact person to work with the school in arranging visits.
- For SWLEs, select one or more employees who are interested in supervising visiting students.
- Host students and/or teachers for worksite visits.
- Complete a short written program evaluation.

back—panel 2

How Can Business, Industry, and Community-Based Organizations Participate in the Worksite Learning Program?

Simply contact the primary coordinator of the program:

Mary Smith
Administrative Liaison
555 Fourth Street
Dayton, Ohio 44332

Phone:(213) 555-1111
Fax:(213) 098-7654

(Insert a photo or school logo here)

back—panel 3

Letter of Introduction

(SCHOOL LETTERHEAD)

August 8, 1997

Ms. Janet Crane
CCC VCR
Industrial Drive
Dayton, Ohio 45005

Dear Ms. Crane,

In an effort to help our junior electronics students understand the importance and application of English skills to the workplace, we would like to request your participation in a one-day activity during the week of October 20, 1997. Your participation will benefit many young women and men at the vocational center, as we attempt to align applied academics with workplace communication skills.

This is the second of a two-part project, which is described in the enclosed brochure. The first part involved teams of vocational and academic teachers who visited local worksites to learn how academics are used in the workplace (Teacher Externships). With the insights gained from the worksite visits, teacher teams worked together to make modifications in the curriculum to reflect more accurately how academics are used in the workplace. In addition, they are working together to arrange for student worksite learning experiences (SWLEs), which is the second part of the project. During SWLEs, students will visit local worksites to make observations about how academics are used in the workplace. It has been shown that students benefit from this type of experience in many ways, including increased motivation in academic classes.

It is our hope that you will be able to provide a meaningful experience for one or more of our electronics students. One of us will call you next week to discuss the SWLE program and the possibility of your participation in the program. We look forward to working with you and hope your busy schedule will allow our students to join you for a day.

Sincerely,

James Alexander
Electronics Teacher

Mark Ritchie
Applied Communications Teacher

Enclosure: SWLE Brochure

Confirmation Letter to Worksite Mentors

(SCHOOL LETTERHEAD)

August 8, 1997

Ms. Melva Rodriguez
ABC Heating and Cooling
555 South Street
Dayton, OH 44332

Dear Ms. Rodriguez,

Thank you for accepting our invitation to participate in the Springfield-Clark JVS Student Worksite Learning Experience (SWLE) program. SWLEs provide opportunities for vocational students to understand how math, science, and communications are used at worksites similar to those for which they are preparing to work.

Susan Smith has been assigned to spend the workday under your supervision on Wednesday, November 1, from 8:00 a.m. to 5:00 p.m. As you can see from the enclosed Student Individual Academic Observation Plan, Susan hopes to have meaningful, hands-on experiences at your worksite in order to see for herself how academics are used on the job. As her worksite mentor, your assistance in providing her with these opportunities are appreciated.

Susan has been given several questionnaires to complete during the visit. She also has a list of questions that will guide her interactions with you and others during the SWLE.

In addition, we would appreciate your evaluation of Susan's performance. Please return the enclosed evaluation as soon as possible after the SWLE. For your convenience, a stamped, pre-addressed envelope has been provided.

One of us plan to call you within the next week to discuss how Susan's Individual Academic Observation Plan might be met at your worksite and to answer any questions that you might have. In the meantime, if you have questions, feel free to contact me at 444-5555, ext. 33.

Once again, we appreciate your assistance.

Sincerely,

George Combs, HVAC Teacher and SWLE Teacher Team Coordinator

Melissa Nelson, Applied Math Teacher

Mike Pottmeyer, Principles of Technology Teacher

Pre-SWLE Press Release

(SCHOOL LETTERHEAD)

RELEASE DATE: Immediate

CONTACT: Mary Smith
(614) 555-1111

LOCAL WORKSITES DEMONSTRATE THE 3 Rs FOR STUDENTS

DAYTON–Many students don't see the connection between school and work. The Student Worksite Learning Experience (SWLE) program is designed to help. The John Bryant Vocational School has teamed with local business and industry to help students learn for themselves how math, science, and communications are used in the workplace.

This month, students in electronics, culinary arts, and marketing will be guided through activities at three local worksites.

Students benefit with improved employability skills, increased motivation, and reinforcement of basic skills. Other benefits include improved curriculum and enhanced school-worksite relationships.

To participate in this or other school-worksite partnerships, contact Mary Smith, SWLE Administrative Liaison, at 555-1111.

Post-SWLE Press Release

(SCHOOL LETTERHEAD)

RELEASE DATE: Immediate

CONTACT: Mary Smith
(614) 555-1111

LOCAL WORKSITES ARE A HIT WITH STUDENTS

DAYTON–Seven local companies provided John Bryant Vocational School students with opportunities to see how the 3 Rs are used at work. Through the Student Worksite Learning Experience (SWLE) program, students in electronics, culinary arts, and marketing programs participated in activities at seven local worksites during the past month. Their teachers made similar visits to these worksites last spring.

The companies that participated in the program were: ABC Electronics, Joe's TV and VCR Repair, Metropolitan Hospital, Mom's Restaurant, Ace Catering, You're Safe Insurance, Federated Department Store, and Market Research, Inc.

Students, teachers, and worksite participants give the experience high marks! Student motivation is increased. Teachers have modified the curriculum to reflect workplace practices. Business and industry have learned new ways to work with schools for the benefit of their future employees.

To participate in this or other school-worksite partnerships, contact Mary Smith, SWLE Administrative Liaison, at 555-1111.

Editors: A photo/caption of SWLE participants at work accompanies this press release.

School Newsletter Article

Collaboration with Local Worksites Enhances Vocational Programs

The student worksite learning experience (SWLE) program helps students experience for themselves how academics are used in the workplace. John Bryant Vocational School has worked in partnership with seven local companies to conduct SWLEs for forty-seven electronics, culinary arts, and marketing students. They each took part in activities at three worksites to learn how math, science, and communications are used at work.

The SWLE worksite partners were ABC Electronics, Joe's TV and VCR Repair, Metropolitan Hospital, Mom's Restaurant, Ace Catering, You're Safe Insurance, Federated Department Store, and Market Research, Inc.

Last spring, three teams of vocational and academic teachers made similar visits to these worksites, through the teacher externship program. The teachers believe that their participation has helped them to be more effective at making learning meaningful for students. Their worksite visits resulted in modified curriculum, increased use of hands-on activities, and development of interdisciplinary projects and assignments.

Benefits of the SWLE program are broad and far-reaching. Program evaluations showed that—

- students gained significant insights into the ways that academics are used in the workplace,
- students learned about what is required of employees at work, and
- worksite representatives learned how schools and employers can collaborate to help students attain skills they need to be successful in the workplace.

Plans are underway for three different vocational programs to participate in SWLEs and teacher externships next year. For information about participating, contact Mary Smith, SWLE Administrative Liaison, in the Job Placement Office.

Appendix E

Worksite Contact Sheet

The purpose of the Worksite Contact Sheet is to allow the administrative liaison and/or a designated member of the teaching team to record relevant information about potential SWLE worksites. This information will be used when assigning students to worksites, following up with worksite contact people, and determining other ways in which the employers might work with schools to provide students with work-based learning experiences.

Related information is covered in Step 8.

Worksite Contact Sheet

Company Name _____
Address _____
Phone Number _____
Worksite Contact Person's Name
Worksite Contact Person's Title _____
Phone Number _____
_____

What are your company's major products or services?

How many people are employed at the worksite?

Is the company interested in hosting one or more SWLE participants?
___yes ___no ___maybe

If yes, what occupational areas can the worksite accommodate?

What kinds of learning opportunities can the worksite offer to students?

If yes, how many students can be hosted?

How many students can be hosted at a time?

How many days can the worksite host SWLE students?

Will additional information about the worksite be sent to the administrative liaison? What kind of information (e.g., company profile sheets)? When?

Additional notes:

Would the contact person or someone else from the worksite like to visit/tour the school? Who? When? Does this person wish to observe any specific program or speak with a particular administrator, director, coordinator, or teacher?

Although it is not recommended that the administrative liaison ask worksite contact people each of the following questions, any information that is gathered in the course of conversations and meetings should be recorded below.

The first column relates to the company's current participation with schools. In other words, are worksite representatives currently working with local schools in any of the following activities? Check all that might apply.

The second column relates to the company's interests in participating with schools in ways that it currently does not participate. In other words, is the company interested in participating in any of the following school-worksite partnerships in the future? Check all that might apply.

Currently participate? yes/no/don't know			Want to participate? yes/no/don't know			
❑	❑	❑	❑	❑	❑	host student tours
❑	❑	❑	❑	❑	❑	participate in a teacher-employee job swap
❑	❑	❑	❑	❑	❑	provide career speakers
❑	❑	❑	❑	❑	❑	host teacher externships
❑	❑	❑	❑	❑	❑	provide employees who will mentor teachers
❑	❑	❑	❑	❑	❑	invite teachers into your company's training classes
❑	❑	❑	❑	❑	❑	provide employees who will mentor students
❑	❑	❑	❑	❑	❑	provide job shadowing opportunities for students
❑	❑	❑	❑	❑	❑	provide employees to mentor internship students
❑	❑	❑	❑	❑	❑	employ co-op students
❑	❑	❑	❑	❑	❑	employ graduates
❑	❑	❑	❑	❑	❑	serve on advisory committees
❑	❑	❑	❑	❑	❑	serve as judges for VSO competition events
❑	❑	❑	❑	❑	❑	serve as external evaluators for projects
❑	❑	❑	❑	❑	❑	other (specify)
❑	❑	❑	❑	❑	❑	other (specify)

Appendix F

Tools for Students

Questions That Students Might Ask Employers and Employees

This is a list of questions that SWLE students might ask employers and employees at worksites. Questions about specific occupations, expectations of employees, and ways in which academics are applied in the workplace are included. Teachers and/or students are encouraged to select some of these questions when developing an interview sheet for students to use during SWLEs.

Student Observation Checklist

The Student Observation Checklist is a tool that provides SWLE students with focus and direction during worksite visits. By having a specific list of activities, interactions, or materials to look for at each worksite, students will be able to–

- focus on a specific academic area,
- make observations using a methodical, well-planned approach, and
- make comparisons between worksites.

The Student Observation Checklist for Communications that follows was developed for welding students who were looking for evidence of the ways in which communications skills were used at worksites. It can be modified for students in different vocational programs and/or who wish to focus on other academic skills (e.g., math, science).

Student Worksite Observation Sheets

The Student Worksite Observation Sheet is also a tool to provide SWLE students with focus and direction during worksite visits. It can be modified to focus on students' specific desired outcomes. Several examples, which were developed by pilot teacher team members, are provided.

SWLE Student Log

The purpose of the SWLE Student Log is to provide students with a convenient way to report their observations, reflections, and conclusions about SWLEs. Students should write one log sheet for each SWLE worksite. It is recommended that students give completed logs to the designated teacher upon return from each worksite visit. Students should be encouraged to keep a copy of the log for their own records and for use in SWLE-related assignments. Teacher teams may decide to have students use a Student Log in addition to or instead of Student Worksite Observation Sheets.

Questions That Students Might Ask Employers and Employees

The purpose of student worksite learning experience (SWLE) interviews is for students to gain an understanding of different occupations and insights into how academics are used in the workplace. Teachers and/or students may wish to select questions to ask worksite mentors, front-line employees, and managers from the list below. Selected questions should be used as a *guide*–students are encouraged to ask other questions if appropriate.

Questions about specific occupations

- What is your job title?
- What tasks do you spend most of your time doing?
- What kinds of education and training were required for your job?
- What are the main personality traits required for your job (e.g., patience, interpersonal communication, ability to work independently and take initiative)?
- Why did you decide to become a _____?
- What are some advantages of your job?
- What do you like best about your job?
- What do you like least about your job?
- What job can you move to that has more responsibility and pay ?

Questions about expectations of employees in general

- What are this worksite's expectations of employees concerning attitude, attendance, and accountability?
- What are the three most important characteristics or skills that are expected of entry-level employees?
- How are employees' skills evaluated before they are hired or promoted?
- What is a reason that an employee would be fired from his or her job?
- What kinds of testing or training are provided for entry-level employees?

Questions about how academics are applied in the workplace

- How important do you think it is for an employee to use good *communication* skills? Can you give an example of how front-line employees use oral and written communication while doing their jobs?
- What are the communication skills that seem most important at this worksite? For example, is persuasion/selling, conflict resolution, process management used at the worksite? Describe ways in which these skills are used.

- How important do you think it is for an employee to use good *math* skills? Can you give an example of how front-line employees use math while doing their jobs?
- How important do you think it is for an employee to use good *science* skills? Can you give an example of how front-line employees use science while doing their jobs?
- Which of your high school academic classes best prepared you for your present job? Why?
- In which academic course(s) do you wish you had studied harder? Why?
- In which subjects do you wish you had taken more courses? Why?
- Do you think there is a direct relationship between an employee's ability to maintain pace with changing technology and an employee's ability to apply academic skills?

Use this space to list additional questions:

Student Worksite Observation Checklist: Communications

Date of SWLE Visit _____

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

Major Products or Services _____

Number of Employees _____

Instructions: Look for ways in which communications are used at the worksite. If possible, gather samples of written communications that you find. Use the space to the right of each item to write notes and comments.

Forms of Communication — Notes and Comments

Communication Protocol:

- ❑ Telephone Procedure
- ❑ Customer Service/Public Relations
- ❑ Other _____

Forms:

- ❑ Job Application
- ❑ Employee Evaluation
- ❑ Sick Leave
- ❑ Vacation Request
- ❑ Time Card
- ❑ Memo
- ❑ Telephone Message
- ❑ Welding Procedure Sheet
- ❑ Job Ticket
- ❑ Job Time Ticket
- ❑ Order Form
- ❑ Purchase Request
- ❑ Invoice
- ❑ Insurance Form
- ❑ Injury Report
- ❑ Other _____

Company Documentation/Procedures:

- ❑ Policy Manual
- ❑ Job Description

- ❑ General Safety Procedures
- ❑ Equipment Use Procedures
- ❑ Codes and Regulations
- ❑ Other _____

Visual Aids:

- ❑ Posted Signs
- ❑ Symbols Used
- ❑ Other Graphics or Charts

Technology:

- ❑ Process Used
  - • FCAW/GTAW
  - • Robotics/automatic welding
  - • Other _____
- ❑ Fabrication Equipment
- ❑ PC Use
  - • Word processing
  - • Referencing
  - • Bookkeeping
  - • Other _____
- ❑ Other _____

Shop/Department Procedures

- ❑ Product Evaluation/Inspection
- ❑ Safety (OSHA guidelines)
- ❑ First Aid
- ❑ Repairing/Replacing Equipment
- ❑ Hazardous/Contaminated Waste Disposal (MSDS-Materials Safety Data Sheet)
- ❑ Other _____

Vocabulary

- ❑ Workplace (technical terms, jargon)
- ❑ Words Containing Prefixes, Suffixes, and/or Root Words
- ❑ Acronyms
  - • OSHA
  - • Other _____
  - • Other _____
- ❑ Flow Chart Possibilities
- ❑ Department (acronyms, technical terms, jargon)
- ❑ Employer-Employee Responsibilities
- ❑ Processing of an Order
- ❑ Other _____

This form was developed by Cathy Deardoff and Ken Kirby, teachers at Manchester Technical Center.

Student Worksite Observation Sheet

Student's Name _____

Worksite _____

Instructions: Give an example of how you observed employees using the following skills as part of their work.

> Example:
> **Organizing-** The construction foreman coordinated delivery of concrete and other supplies.

Organizing _____

Planning _____

Reading _____

Writing _____

Math _____

Science _____

Listening _____

Speaking _____

Making Decisions _____

Thinking Creatively _____

Analyzing Problems _____

Using Technology _____

Cooperating with Others _____

Working Independently _____

Serving Customers _____

This form was adapted from the Job Shadowing Guide, *Northwest Regional Educational Laboratory.*

Student Worksite Observation Sheet: Communication

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

Observe examples of oral, written, and nonverbal communications between various people within the worksite you visit. Based on these observations, formulate opinions concerning the effectiveness of each style of communication observed.

1. Describe an oral communication between a customer and an employee or between a manager and a front-line employee below. Then, answer the following questions:

   a. Who initiated the communication? Who did most of the talking?

   b. Was the communication one-way or two-way? Explain why.

   c. What information was shared? By whom?

   d. Did the communicators appear to fully understand each other? How could you tell if there was understanding?

2. Describe an oral communication between two employees in which feelings were expressed. How was this exchange different from the example above?

3. Describe one form of written communication at the worksite below. Then, answer the following questions:

   a. What data is shared?

   b. How is this information important to the orderly flow of work?

   c. If this information is not important to work flow, why is it being communicated?

   d. Does this information need to be kept confidential? Why or why not?

4. Describe a nonverbal communication you observed at the worksite below. Then, answer the following questions:

   a. What were the circumstances of the nonverbal communication?

   b. Was this performed where a customer or visitor could observe it?

   c. If a verbal message was also expressed, was it positive or negative?

   d. If the verbal and nonverbal messages did not agree, did the receiver of the message show any confusion or reluctance to accept the message?

This form was adapted from an SWLE Observation Sheet developed by pilot teachers at Whitmer Career and Technology Center.

Student Worksite Observation Sheet: Medical Terminology

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

A solid foundation in medical terminology is necessary for health care workers. Observe the ways health care workers in the worksite you visit use technical terminology. Relate this to what you know about communication.

1. Observe an oral communication between a patient and one of the medical staff members. Listen for specific words that are considered to be medical terms. List three of the words you heard below. Then, define those words.

   •

   •

   •

2. Read information either on a patient's chart, or that may be added to a patient's chart. Choose four words that you are not familiar with and write them below. When you return to school, look these words up in a medical dictionary, and write the definitions beside each word below.

   •

   •

   •

   •

This SWLE Observation Sheet was developed by pilot teachers in the DCHO program at Whitmer Career and Technology Center.

Student Worksite Observation Sheet: Science

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

The following is a list of some of the major science concepts you may see at one or more of your SWLE worksites. If they are found, describe how they are used at the worksite.

soils

plant science

animal science

genetics

nutrition

mechanics

scientific calculations

hybridization

fertilizers

chemicals

water quality

environmental concerns

biotechnology

other science concepts (list and describe below):

This SWLE Observation Sheet was developed by pilot teachers at Miami Valley Career Technology Center.

Student Worksite Observation Sheet: Anatomy, Physiology, and Communications

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

It is clear that anatomy and physiology are important to the effectiveness of health care workers. During your SWLE, observe and relate what you have been taught in the classroom to the actual use of anatomy and physiology in the health care setting.

1. Listen to you worksite mentor's communications to others. In the space below, list three terms he/she used that you recognize from your studies of anatomy and physiology.

   •

   •

   •

2. From your observations, what body system appears to be examined most, or seems to be the major concern of people in the department in which you are observing? In the space below, describe what you observed. If there is not one clear example, list the body system discussed by the health care workers most frequently.

3. In the space below, describe a body system examined or referred to by your worksite mentor when he or she was talking with a patient.

   - What was the system?

   - How was the system described?

   - Did the patient appear to understand the conversation? How could you tell?

4. What types of written references to body systems appeared in the department you visited? In the space below, list three and describe them.

   -

   -

   -

5. What types of written reference books or other materials are present in the department? List three below.

   -

   -

   -

   Then, open one reference book and find an example of how anatomy and physiology are used in the text. Describe your findings below.

This SWLE Observation Sheet was developed by pilot teachers in the DCHO program at Whitmer Career and Technology Center.

Student Worksite Observation Sheet: Math

Student's Name _____

Worksite _____

Worksite Mentor's Name _____

A. As you talk with your worksite mentor and work with him or her throughout the day, identify the math concepts and calculations that have been used. Some of the math concepts you may see are listed below. In the appropriate spaces, write in specific calculations or formulas you have seen being used during your SWLE visit.

1. basic math

2. measurement

3. area calculations

4. volume calculations

5. ratios and proportions

6. charts and graphs

7. other mathematical concepts

B. Questions to ask at the worksite:

8. How important are calculators in your line of work? Do you use them or is most of the math done in your head?

9. What math concepts are used that I may not have identified today?

This SWLE Observation Sheet was developed by pilot teachers at Miami Valley Career Technology Center.

SWLE Student Log

SWLE participants should complete an SWLE Student Log sheet for each worksite that is visited. Log sheets should be returned to your vocational teacher the day after each SWLE visit.

Student's Name _____

Company Name _____

Address _____

Worksite Mentor's Name and Title _____

Date of SWLE Visit _____

Time of Arrival _____ Time of Departure _____

Summary of SWLE Activities

What was your schedule of events? In other words, list what you did during your worksite visit.

How did you **observe** science used at the worksite? Give examples.

How did you **observe** math used at the worksite? Give examples.

How did you **observe** communications used at the worksite? Give examples.

Did you **use** academic skills at the worksite (e.g., science skills such as analyzing, math skills such as calculating, and communications skills such as writing, listening, or interacting)?

Write at least three things that you learned by observing and talking with others?

1.

2.

3.

What did you enjoy most about your worksite visit?

What did you enjoy least about your worksite visit?

What was the most important thing you learned during your visit to this worksite?

Reflection and Evaluation

Do you think the visit was worthwhile? Why?

Was the experience as you expected it? Explain.

Was this a good place to observe how academics are used in the workplace? Give reasons why or why not.

Was your worksite mentor helpful, cooperative, and interested in making this a useful learning experience? Explain.

Were others within the worksite helpful? (Provide names if appropriate.)

Would you recommend that this worksite be visited by other students? Explain why or why not.

Submit SWLE Logs to your vocational teacher the day following each SWLE visit. Keep a copy for your records.

Appendix G

Evaluation of SWLE Student Performance

Student Self-Evaluation Form

The SWLE Student Self-Evaluation Form provides students with an opportunity to assess their performance at worksites. If desired, it can include the same items as the Worksite Mentor's Evaluation of Student Performance Form. By doing this, students and teachers can compare student and worksite mentor perceptions.

Worksite Mentor's Student Performance Evaluation Form

The purpose of the Worksite Mentor's Student Performance Evaluation Form is to provide a way for worksite mentors to provide feedback to SWLE students and share their feedback with teacher team members.

Teacher Observation Form

The purpose of the Teacher Observation Form is to provide a standard guide for teachers to follow when observing students at worksites during SWLEs. The teacher's observations should be shared with students and with other teacher team members.

Information about teacher observations at worksites is provided in Step 14.

Student Worksite Learning Experience

Student Self-Evaluation Form

Student's Name _____

Instructions: Evaluate your own performance during the student worksite learning experiences (SWLEs) by responding to the following statements. Evaluate yourself by marking "excellent," "good," or "needs improvement" for each statement.

	Excellent	Good	Needs Improvement
1. I was *prepared* for SWLE visits.	❑	❑	❑
2. I was *punctual.*	❑	❑	❑
3. I was *dependable.*	❑	❑	❑
4. I was able to *get along with others.*	❑	❑	❑
5. I used effective *speaking skills.*	❑	❑	❑
6. My *appearance* was appropriate.	❑	❑	❑
7. I *followed instructions.*	❑	❑	❑
8. I *asked probing questions.*	❑	❑	❑
9. I *asked for help* when needed.	❑	❑	❑
10. I had a *positive attitude.*	❑	❑	❑

Instructions: Read each statement for which you gave yourself a rating of "needs improvement." In the space below, explain what you can do to improve. Use additional paper if you need more space.

Instructions: Write the name of each worksite you visit during your SWLEs in the left column of spaces below. In the right column, describe what you did at each worksite.

Worksite Name	Activities Done at the Worksite

Write additional comments or recommendations concerning your SWLE participation in the following space. Use an additional sheet if you need more space.

Return this completed sheet to your vocational teacher on the following date:

_____.

This form was adapted from Career Exploration Guide, *Northwest Regional Vocational Laboratory.*

Student Worksite Learning Experience

Worksite Mentor's Student Performance Evaluation Form

Worksite Mentor's Name and Title _____

Company Name _____

Name of Participating Student _____

Instructions: Evaluate the performance of each student you supervised during the student worksite learning experiences (SWLEs) by responding to the following statements. Evaluate his or her performance by marking "excellent," "good," or "needs improvement" for each statement.

	Excellent	Good	Needs Improvement
1. The student was *prepared* for the visit.	❑	❑	❑
2. The student was *punctual.*	❑	❑	❑
3. The student was *dependable.*	❑	❑	❑
4. The student *got along with others.*	❑	❑	❑
5. The student used effective *speaking skills.*	❑	❑	❑
6. The student's *appearance* was appropriate.	❑	❑	❑
7. The student *followed instructions.*	❑	❑	❑
8. The student *asked probing questions.*	❑	❑	❑
9. The student *asked for help* when needed.	❑	❑	❑
10. The student had a *positive attitude.*	❑	❑	❑

11. Review each statement for which you gave the student a rating of "needs improvement." In the space below, explain why you gave that rating and, if possible, describe what the student might do to improve. Use additional paper if needed.

12. Describe what the student did during the SWLE.

13. Please write comments or recommendations concerning this SWLE participant. Students benefit most when your comments are specific.

Evaluation completed by _____
(print name, title, and company)

I certify that the student was at my worksite from _____ a.m./p.m. to _____ a.m./p.m.

Signature _____

Return this completed evaluation to _____
or fax to _____ *no later than* _____.

This form was adapted from Career Exploration Guide, *Northwest Regional Vocational Laboratory.*

Student Worksite Learning Experience
Teacher Observation Form

Instructions: Use this form to record your observations of students at each SWLE worksite. Use one form for each student.

Student's Name _____

Observing Teacher's Name _____

Worksite _____

Worksite Contact Person's Name _____

Worksite Mentor's Name and Title _____

Date and Time of Visit _____

Observations of the Worksite

Description of the atmosphere of worksite environment:

Is the worksite mentor taking an active role in making the SWLE a positive experience for the student? Explain.

Description of what the student was doing:

Is the student being given the opportunities described on the SWLE Agreement? Explain.

Description of the student's appearance:

Additional observations and comments:

Instructions: In the sections below, indicate the mentor's ratings of student performance. Rate each performance element as high (H), medium (M), low (L), or not applicable (NA), and write comments that reflect the mentor's comments.

Conference with the worksite mentor:	H	M	L	NA	Comments
Student's attendance/punctuality	❑	❑	❑	❑	
Student's appearance	❑	❑	❑	❑	
Student's communication skills	❑	❑	❑	❑	
Student's behavior	❑	❑	❑	❑	
Student's ability to get along with others	❑	❑	❑	❑	
Student's willingness to take initiative	❑	❑	❑	❑	
Overall quality of the student's performance	❑	❑	❑	❑	

Mentor's comments about the student's strengths:

Mentor's comments about areas in which the student's skills might be improved.

Instructions: In the sections below, indicate the student's ratings of his/her own performance. Rate each performance element as high (H), medium (M), low (L), or not applicable (NA), and write comments that reflect the student's comments.

Conference with the student:	H	M	L	NA
Student's evaluation of his/her attendance/punctuality	❑	❑	❑	❑
Student's evaluation of his/her appearance	❑	❑	❑	❑
Student's evaluation of his/her communication with others at the worksite	❑	❑	❑	❑
Student's opinion of the overall quality of his/her performance	❑	❑	❑	❑
Student's perception of the mentor's willingness to assist the student	❑	❑	❑	❑

Additional comments:

Notes: In the space below, describe the concepts that might be addressed in the classroom, after the SWLE:

Copies of this Teacher Observation Form should be provided to all teaching team members.

Appendix H

Evaluation of the SWLE Program

The purpose of these student, teacher, worksite mentor, and worksite contact person evaluations is to give program participants opportunities to reflect upon their experiences and provide feedback concerning the SWLE program. This input should be summarized by the administrative liaison and shared with all participants. In addition, the input from evaluations should be used to modify the SWLE program for future years.

Samples of the following forms are provided in Appendix H:

- Student Evaluation Form (two examples)
- Worksite Mentor Evaluation Form
- Worksite Contact Person Evaluation Form
- Teacher Evaluation Form

Information about evaluating the SWLE program was covered in Step 17.

Student Evaluation Form

Example One

The coordinators, facilitators, and supporters of the SWLE program are interested in your feedback. Your input will be used in planning future SWLEs. Please review the following statements, and circle the letter that most closely corresponds with your response to each statement. Your responses can range from A (definitely no) to E (definitely yes).

Return this evaluation to _____ on _____.
(teacher) (date)

	Definitely No				Definitely Yes
Quality of the SWLE Sites:					
1. I was pleased with the worksites I visited.	A	B	C	D	E
2. I was pleased with the attitudes of my worksite mentors.	A	B	C	D	E
Quality of the SWLE Experience:					
3. The SWLE visit was well organized.	A	B	C	D	E
4. I understood the purpose and goals of the SWLE.	A	B	C	D	E
5. The SWLE was a good way to meet my SWLE goals.	A	B	C	D	E
6. The SWLE experience met my expectations.	A	B	C	D	E
7. The SWLE was a useful experience for me.	A	B	C	D	E
8. My perception of how academics are used in the workplace were sharpened as a result of the SWLE.	A	B	C	D	E
9. I received adequate supervision throughout my SWLE.	A	B	C	D	E
Quality of the Worksite Mentor:					
10. My mentor was available when I needed him/her.	A	B	C	D	E
11. My mentor spent an adequate amount of time with me.	A	B	C	D	E
12. My mentor assisted me when problems arose.	A	B	C	D	E

Please write specific comments in the space below. Use the back of this sheet if additional space is needed.

Student Evaluation Form

Example Two

Congratulations on completing your SWLE! Let us know what you thought about it. Respond to each statement below by circling 1 if you strongly disagree, 2 if you disagree, 3 if you are neutral, 4 if you agree, and 5 if you strongly agree. Return this evaluation to _____ (teacher) on _____. (date)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I received adequate information to prepare me for my SWLE.	1	2	3	4	5
2. I believe I was able to attain my SWLE goals.	1	2	3	4	5
3. I learned how academic skills are used at worksites.	1	2	3	4	5
4. I learned what the general expectations are for being a good employee.	1	2	3	4	5
5. My SWLE helped me see how my academic studies are important to my future plans.	1	2	3	4	5
6. I would recommend participation in the SWLE program to friends.	1	2	3	4	5

7. What suggestions do you have for modifying the SWLE program–before, during, and after the worksite observations?

8. What was the most important thing you learned during your SWLE observations?

9. What difficulties occurred at the worksite? What did you do about them?

10. What interesting or challenging relationship did you have with others at worksites? With whom? Describe.

11. Would you recommend the SWLE to a friend? Why or why not?

Student Worksite Learning Experience Program

Worksite Mentor Evaluation Form

Thank you for hosting an SWLE participant! Please complete this brief evaluation of your experience so we can continue to improve the program. Return it to _____ (name/address) no later than _____.
For your convenience, a return envelope has been provided.

Respond to each statement below by **circling** 1 if you strongly disagree, 2 if you disagree, 3 if you are neutral, 4 if you agree, and 5 if you strongly agree.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I received adequate information to prepare me for working with SWLE students.	1	2	3	4	5
2. I believe I was able to help students attain their SWLE goals.	1	2	3	4	5
3. The SWLE program was successful.	1	2	3	4	5
4. I would be interested in participating in SWLEs next year.	1	2	3	4	5
5. I would recommend participation in the SWLE program to coworkers.	1	2	3	4	5

Write brief responses to the following questions. Use the back or an additional sheet if needed.

6. What did you like best about SWLEs?

7. How could we better support you throughout the experience?

8. If you participated in the program again next year, what things would you do in the same way?

9. What would you do differently next year? How would you change the way you structure your day with students?

10. What suggestions would you make for other SWLE coordinators/facilitators for future years?

11. Additional comments or suggestions?

Student Worksite Learning Experience Program

Worksite Contact Person Evaluation Form

Thank you for being an SWLE partner! Please complete this brief evaluation of your experience so we can continue to improve the program. Return it to _____ (name/address) no later than _____.
For your convenience, a return envelope has been provided.

Please rate the following by **circling** 1 if you strongly disagree, 2 if you disagree, 3 if you are neutral, 4 if you agree, and 5 if you strongly agree.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I received adequate information to prepare me for working with SWLE students.	1	2	3	4	5
2. I believe we were able to help students attain their SWLE goals.	1	2	3	4	5
3. The SWLE program was successful.	1	2	3	4	5
4. I would be interested in participating in SWLEs next year.	1	2	3	4	5
5. I would recommend participation in the SWLE program to others.	1	2	3	4	5

Write brief responses to the following questions. Use the back or an additional sheet if needed.

6. What did you like best about SWLEs?

7. How could we have better supported you throughout the SWLE experience?

8. If you participated in the program again next year, what things would you do the same way?

9. What would you do differently next year?

10. What did you like about the ways in which others (e.g., administrative liaison, teachers, worksite mentors) coordinated/facilitated the SWLEs?

11. What suggestions would you make for SWLE coordinators/facilitators for future years?

12. Would your company be able to participate in other worksite-school partnerships? Indicate your interest in learning more about the following opportunities (check all that apply):

- ❑ Host student tours
- ❑ Participate in a teacher-employee job swap
- ❑ Provide career speakers
- ❑ Host teacher externships
- ❑ Provide employees who will mentor teachers
- ❑ Invite teachers into your company's training classes
- ❑ Provide employees who will mentor students
- ❑ Provide job shadowing opportunities for students
- ❑ Provide employees to mentor internship students
- ❑ Employ co-op students
- ❑ Employ graduates
- ❑ Serve on advisory committees
- ❑ Serve as judges for Vocational Student Organization (VSO) competition events

Contact person's name

Name of company

Phone number

Student Worksite Learning Experience Program

Teacher Evaluation Form

Supporters of the SWLE program are interested in your feedback. Your input will be used in planning future SWLEs. Please take a few minutes to respond to the following questions. Return this evaluation to _____ no later than_____.

Respond to each statement below by circling 1 if you strongly disagree, 2 if you disagree, 3 if you are neutral, 4 if you agree, and 5 if you strongly agree.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I received adequate information to prepare me for working with SWLE students.	1	2	3	4	5
2. I believe I was able to help students attain their SWLE goals.	1	2	3	4	5
3. The SWLE program was successful.	1	2	3	4	5
4. I would be interested in participating in SWLEs next year.	1	2	3	4	5
5. I would recommend participation in the SWLE program to other teachers.	1	2	3	4	5

Please write brief responses to the following questions. Use the back or an additional sheet if needed.

6. What did you like best about SWLEs?

7. What did you like least about SWLEs?

8. What outcomes occurred that you expected?

9. What outcomes occurred that you did not expect?

10. Would you be interested in participating in SWLEs again next year? Why?

11. If you participated in the program again next year, what things would you do in the same way?

12. What would you do differently next year?

13. What did you like about the ways in which others (e.g., administrative liaison, teachers, worksite contact people, worksite mentors) coordinated/facilitated the SWLEs ?

14. What suggestions would you make for other SWLE coordinators/facilitators for future years?

15. Additional comments and suggestions:

Appendix I

Recognize Contributions of Worksite Representatives and Acknowledge Appreciation

Thank-You Letters

The purpose of the thank-you letter is to officially communicate appreciation to the worksites employees who provided SWLE students with support before and during visitations. Letters should be written by students, the administrative liaison, and one or more teaching team members. Letters should be typed, but a personal, hand-written note may be written on the bottom of the letter, on a self-adhesive note, or on a separate sheet. Information about thank-you letters was covered in Step 18.

Certificate of Appreciation

A framed certificate of appreciation or other symbol of recognition is an appropriate way to recognize the contributions that SWLE worksite partners have made to the success of the program.

Preprinted certificate blanks can be purchased at office supply stores. Personalized certificates can be laser printed on the blank forms.

Additional suggestions for acknowledging appreciation to worksite partners was covered in Step 18.

Thank-You Letter from Students

Instructions: Using the model below, draft a thank you letter to each of your worksite mentors.

Your street address
City, State ZIP code

Date (month, day, year)

Worksite mentor's name and title
Name of company
Street address
City, State ZIP code

Dear _____:

Paragraph 1: Thank your worksite mentor for the opportunity to do the SWLE under his/her supervision.

Paragraph 2: Describe some of the things you learned as a result of the SWLE visit.

Paragraph 3: Add any additional comments.

Sincerely,

(Your signature)

Your typed name

This form was adapted from the Job Shadowing Guide, *Northwest Regional Educational Laboratory.*

Thank-You Letter from the Administrative Liaison

(SCHOOL LETTERHEAD)

August 8, 1997

Mr. Steven Jones
All-Seasons Heating and Cooling
555 South Street
Dayton, Ohio 44332

Dear Steven:

On behalf of John Bryant Vocational School, I would like to thank you for your support of the student worksite learning experience (SWLE) program. I appreciated your eagerness in working with me to plan the opportunities that SWLE participants would have at All-Seasons Heating and Cooling. In addition, the preparatory work that you did with the worksite mentors resulted in very positive experiences for our students. Please accept the enclosed certificate as a small token of our appreciation for the contributions you and others in your company have made to the success of SWLEs.

As you know, I conducted an evaluation of the SWLE program by gathering information from all participants, including worksite contact people, worksite mentors, teachers, and students. Upon initial review of the evaluations, it appears that most participants were very satisfied with the program. Once the evaluation results are summarized, I will send you a complete report.

It is my hope that we will be able to continue our partnership. In an effort to keep you informed about activities at John Bryant, I will put your name on our school mailing list. The teachers and I plan to keep you informed about curricular changes that are made as a result of SWLEs. In addition, you may be invited to participate in other partnership activities by a member of our professional staff.

Once again, thank you for your support and assistance. Your contribution has made a positive difference in our educational program.

Sincerely,

Mary Smith
SWLE Administrative Liaison

Thank-You Letter from Teachers

(SCHOOL LETTERHEAD)

August 8, 1997

Ms. Janet Crane
CCC VCR
Industrial Drive
Dayton, Ohio 44332

Dear Ms. Crane:

We can't thank you enough for participating in the student worksite learning experience program. By hosting four of our electronics students for a one-day visit to your worksite, you have helped them to gain an understanding of the importance and application of English skills to the workplace.

We are especially appreciative of the time and energy you took to select caring worksite mentors and to orient them to their roles. Your extra attention resulted in students' having very positive experiences at CCC VCR.

We are enclosing copies of several of the student reports that SWLE participants wrote after their visits to worksites and related classroom activities. They demonstrate that these students have a clearer understanding of what employers expect of employees and of how communications skills are used in the workplace.

It is our hope that we will be able to work together in other worksite-school partnerships.

Sincerely,

James Alexander
Electronics Teacher

Mark Ritchie
Applied Communications Teacher

Enclosures: Worksite Learning Brochure
Student Reports

Certificate of Recognition

to

ABC Computer Supplies

for

Outstanding Support of John Bryant School's
Student Worksite Learning Externship Program

Date

Jane A. Rodriguez, Chairperson
John Bryant Board of Education

Appendix J

Excerpts from an OCAP

Occupational Competency Analysis Profiles (OCAPs) provide educators with a list of occupationally specific skills (or competencies) that are verified by individuals from business, industry, and community-based organizations who currently practice the occupation. Each OCAP identifies the occupational, academic, and employability skills needed to enter a given occupation or occupational area. OCAP documents also contain Academic Job Profiles determined by the ACT Work Keys System.

In order to provide you with an idea of the information about occupation-related academic skills that can be gleaned from OCAPs, the following pages contain excerpts from the Business Administration and Management OCAP and Job Profile. Teacher team members may get copies of OCAPS from the administrative liaison or the Vocational Instructional Materials Laboratory.

Additional information about how OCAPs might be used in structuring SWLEs is covered in Steps 5, 12, and 16.

OCAP

OCCUPATIONAL COMPETENCY ANALYSIS PROFILE

BUSINESS ADMINISTRATION AND MANAGEMENT

VERIFICATION PANEL

Terrie Huston, CPS, *Secretarial Consultant*, Columbus, Ohio

Chuck Johnson, *National City Bank, Northwest*, Toledo, Ohio

Christina Lombardo, *Checkfree Corporation*, Columbus, Ohio

Jerry Reeder, *G.T.E. North Telephone Operations*, Marion, Ohio

Michael L. Schlecht, *Whirlpool Corporation*, Marion, Ohio

Thomas G. Schneider, *Investors Asset Management*, Medina, Ohio

Chris Spengler, CPS/CAM, *The University of Toledo*, Toledo, Ohio

Walter G. Williams, *Organizational Transfer and Outplacement Consultant*, Cincinnati, Ohio

Vocational Education

Division of Vocational and Adult Education
Ohio Department of Education

VIML
VOCATIONAL INSTRUCTIONAL MATERIALS LABORATORY

Vocational Instructional Materials Laboratory
Center on Education and Training for Employment

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Verification Panels ..... Inside back cover

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Vocational Instructional Materials Laboratory
Center on Education and Training for Employment - The Ohio State University
1900 Kenny Road
Columbus, Ohio 43210

Introduction

What is an OCAP?

According to the *Action Plan for Accelerating the Modernization of Vocational Education: Ohio's Future at Work*—

> A comprehensive and verified employer competency list will be developed and kept current for each program
>
> —Imperative 3, Objective 2—

The Occupational Competency Analysis Profiles (OCAPs) are the Ohio Division of Vocational and Adult Education's response to that objective.

OCAPs are competency lists—verified by expert workers—that evolve from a modified DACUM job analysis process involving business, industry, labor, and community agency representatives from throughout Ohio. The OCAP process is directed by the Vocational Instructional Materials Laboratory located at The Ohio State University's Center on Education and Training for Employment.

How is the OCAP used?

Each OCAP identifies the occupational, academic, and employability skills (or competencies) needed to enter a given occupation or occupational area. The OCAP not only lists the *competencies* but also clusters those competencies into broader *units* and details the knowledge, skills, and attitudes (*competency builders*) needed to perform each competency.

Within the competency list are two levels of items: core and advancing. *Core items*, which are essential for entry-level employment, are required to be taught and are the basis for questions on the Ohio Vocational Competency Assessment (OVCA). *Advancing items* (marked with an asterisk) are those needed to advance in a given occupation.

School districts may add as many units, competencies, and/or competency builders as desired to reflect local employment needs, trends, and specialties. Local advisory committees should be actively involved in the identification and verification of additional items. Vocational and applied academic instructors will be able to formulate their courses of study using the varied contents of the OCAP and will be able to monitor competency gains via the new criterion-referenced competency testing program, which is tied to the competencies identified on the OCAP.

Excerpts from the OCAP for Businessss Administration and Management

Unit 2: Management and Supervision

Competency 2.1: Maintain a safe working environment

Competency Builders:

2.1.1 Access needed safety information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
2.1.2 Identify health and safety standards established by government agencies
2.1.3 Explain relationships between health, safety, and productivity
2.1.4 Comply with government and/or company rules and regulations related to health and safety
2.1.5 Identify preventive measures for dealing with the main causes of accidents in the facility
2.1.6 Identify preventive measures for dealing with the main causes of health problems (e.g., carpal tunnel syndrome) in the facility
2.1.7 Identify preventive measures for dealing with violations of personnel security
2.1.8 Ensure maintenance of a clean work area
2.1.9 Perform safety audits and inspections
2.1.10 Solve safety problems using problem-solving, decision-making, and critical thinking skills

Competency 2.3: Perform staffing functions

Competency Builders:

2.3.1 Develop plans and procedures for identifying staffing needs
2.3.2 Implement staffing needs plan
2.3.3 Develop job descriptions
2.3.4 Develop hiring and promotion policies and procedures in compliance with state and federal employment laws*
2.3.5 Prepare guidelines for selecting most qualified person for specific position
2.3.6 Comply with state and federal employment laws and company hiring policies and procedures
2.3.7 Identify resources for locating candidates
2.3.8 Recruit employees
2.3.9 Identify most appropriate candidates for position (e.g., appropriate skills, team fit, contractual specifications)
2.3.10 Interview candidates for position
2.3.11 Follow up on information provided on job applications (e.g., contact references listed)
2.3.12 Recommend or select applicants for employment
2.3.13 Orient new employees
2.3.14 Maintain personnel records
2.3.15 Comply with labor contracts
2.3.16 Comply with Workers' Compensation guidelines
2.3.17 Provide for unconventional work schedules (e.g., flex time, shared positions)
2.3.18 Identify additional or alternative employee benefits that the company might consider furnishing to employees and their families

*Advancing

Competency 2.4: Manage employee performance

Competency Builders:

2.4.1	Apply management/leadership style appropriate for situation
2.4.2	Communicate performance expectations
2.4.3	Create/maintain an environment supportive of productivity
2.4.4	Monitor employee performance
2.4.5	Maintain performance records
2.4.6	Evaluate employee performance
2.4.7	Provide constructive criticism and feedback
2.4.8	Counsel employees (e.g., concerning personal issues, career objectives, drug and alcohol abuse, violence)
2.4.9	Discipline employees
2.4.10	Make recommendations based on employee performance (e.g., transfer, promote, dismiss)
2.4.11	Manage the change process (e.g., for right sizing, technologies, globalization, retraining)
2.4.12	Adhere to company policies and federal laws concerning nondiscrimination and harassment
2.4.13	Demonstrate sensitivity to diversity, including gender, culture, race, language, physical and mental challenges, and family structures
2.4.14	Demonstrate appreciation of diversity, including gender, culture, race, language, physical and mental challenges, and family structures
2.4.15	Apply knowledge of motivational theories in selecting management techniques (e.g., Maslow, Herzberg)
2.4.16	Solve personnel problems using problem-solving, decision-making, and critical thinking skills

Competency 2.7: Perform routine management functions

Competency Builders:

2.7.1	Guide the management process using problem-solving, decision-making, and critical thinking skills
2.7.2	Develop management objectives
2.7.3	Conduct task analyses
2.7.4	Create/maintain organizational and/or departmental charts
2.7.5	Maintain procedure manuals
2.7.6	Solve space utilization problems using math and problem-solving skills
2.7.7	Follow chain of command
2.7.8	Maintain confidentiality
2.7.9	Clarify company policies and procedures
2.7.10	Communicate cost containment factors
2.7.11	Prepare budgets
2.7.12	Monitor budget activity
2.7.13	Prepare managerial reports
2.7.14	Analyze daily production reports
2.7.15	Represent the organization to the public

*Advancing

Unit 3: Accounting and Financial Functions

Competency 3.1: Apply mathematical skills

Competency Builders:

3.1.1 Solve addition, subtraction, multiplication, and division problems manually
3.1.2 Solve addition, subtraction, multiplication, and division problems using a calculator
3.1.3 Convert/reduce fractions
3.1.4 Compute percentages and ratios
3.1.5 Solve business-related problems using algebraic formulas
3.1.6 Determine whether sufficient, insufficient, or extraneous information is given for solving a problem
3.1.7 Solve finance charge and annual percentage rate problems using a calculator
3.1.8 Solve compound interest problems
3.1.9 Construct tables or graphs using computer software
3.1.10 Interpret tables and graphs (line, circle, and bar)
3.1.11 Apply business statistics
3.1.12 Compute business and financial data
3.1.13 Perform data analysis and probability*

Competency 3.2: Perform general accounting functions

Competency Builders:

3.2.1 Access needed information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
3.2.2 Apply generally accepted accounting principles and procedures in various business environments
3.2.3 Apply basic managerial accounting concepts
3.2.4 Select computer software appropriate for the function to be performed
3.2.5 Select mathematical skills appropriate for the function to be performed
3.2.6 Process receivables
3.2.7 Process payables
3.2.8 Process purchases
3.2.9 Monitor expense accounts
3.2.10 Prepare budgets
3.2.11 Make financial decisions using problem-solving, decision-making, and critical thinking skills

Competency 3.3: Perform payroll functions

Competency Builders:

3.3.1 Access needed information using manufacturers' manuals, documentation, terminology, and other reference materials
3.3.2 Comply with company policies and procedures related to payroll
3.3.3 Apply generally accepted accounting principles and procedures
3.3.4 Select mathematical skills appropriate for the function to be performed
3.3.5 Select computer software appropriate for the function to be performed
3.3.6 Process payroll documents
3.3.7 Calculate employee earnings and deductions
3.3.8 Prepare payroll checks
3.3.9 Complete payroll records
3.3.10 Monitor personnel costs
3.3.11 Prepare payroll tax reports

*Advancing

Unit 4: Information Technology

Competency 4.1: Demonstrate knowledge of computerized information processing

Competency Builders:

4.1.1 Identify applications of computers in business
4.1.2 Explain data processing concepts
4.1.3 Interpret information processing terminology
4.1.4 Interpret software licensing agreements
4.1.5 Identify computer hardware components and software
4.1.6 Identify current operating systems
4.1.7 Locate needed information on computer printouts
4.1.8 Interpret information on computer printouts
4.1.9 Locate errors on computer printouts
4.1.10 Identify the procedures for installing equipment and software

Competency 4.2: Perform basic word processing functions

Competency Builders:

4.2.1 Access needed information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
4.2.2 Follow written and/or oral specifications
4.2.3 Apply basic communication skills
4.2.4 Apply basic computer skills
4.2.5 Create files using word processing functions
4.2.6 Input data using word processing functions
4.2.7 Process data using word processing functions
4.2.8 Output data using word processing functions
4.2.9 Verify accuracy of output
4.2.10 Integrate word processing files with other application software
4.2.11 Perform desktop publishing functions

Competency 4.3: Perform basic spreadsheet functions

Competency Builders:

4.3.1 Access needed information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
4.3.2 Follow written and/or oral specifications
4.3.3 Apply mathematical skills (e.g., algebraic, statistical)
4.3.4 Apply basic computer skills
4.3.5 Create files using spreadsheet functions
4.3.6 Input data using spreadsheet functions
4.3.7 Process data using spreadsheet functions
4.3.8 Output data using spreadsheet functions
4.3.9 Verify accuracy of output
4.3.10 Integrate spreadsheet files with other application software

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Unit 5: General Office Functions

Competency 5.1: Perform telephone operations

Competency Builders:

5.1.1 Access needed information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
5.1.2 Employ telephone etiquette
5.1.3 Place local calls
5.1.4 Place national and international calls using direct dial, telephone credit card, or operator assistance
5.1.5 Verify information provided by other party
5.1.6 Take phone messages
5.1.7 Send/receive messages via mobile communications
5.1.8 Send/receive messages via voice messaging
5.1.9 Send/receive messages via teleconferencing
5.1.10 Maintain lists of needed numbers (e.g., phone, fax, e-mail)

Competency 5.2: Maintain files

Competency Builders:

5.2.1 Access needed information using company and manufacturers' references (e.g., procedural manuals, documentation, standards, work flowcharts)
5.2.2 Select filing/storage system appropriate for materials to be filed (e.g., manual, automated, microfilm)
5.2.3 Organize files (e.g., alphabetic, numeric, alpha-numeric, geographic, or subject filing system)
5.2.4 Index files
5.2.5 File documents and integrated media (e.g., electronic resumes, videos, disks)
5.2.6 Secure files for legality and confidentiality
5.2.7 Retrieve documents and integrated media
5.2.8 Update files
5.2.9 Identify legal and other considerations related to records retention
5.2.10 Determine retention schedule
5.2.11 Purge files according to retention schedule
5.2.12 Streamline files (e.g., consolidate, archive, destroy)

Competency 5.3: Maintain supplies and forms

Competency Builders:

5.3.1 Prepare budget for supplies and forms
5.3.2 Prepare cost justification for the purchasing of supplies and forms
5.3.3 Prioritize requests
5.3.4 Order supplies and forms
5.3.5 Verify supplies and forms received
5.3.6 Store supplies and forms in a secure location
5.3.7 Issue supplies and forms
5.3.8 Inventory supplies and forms
5.3.9 Purge supplies and forms
5.3.10 Prepare inventory reports

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Unit 6: Communications

Competency 6.1: Apply communication skills

Competency Builders:

6.1.1 Guide communication activities using problem-solving, decision-making, and critical thinking skills
6.1.2 Guide communication activities using established rules for grammar, spelling, and sentence construction
6.1.3 Evaluate audience
6.1.4 Determine means of communication appropriate to audience and situation (e.g., telephone, meeting, electronic mail, written communications)
6.1.5 Determine timing of communications
6.1.6 Follow written and/or oral instructions
6.1.7 Apply creativity in oral and written communications
6.1.8 Proofread documents
6.1.9 Edit documents using proofreading symbols
6.1.10 Correct documents
6.1.11 Interpret oral, written, and nonverbal communication
6.1.12 Interpret charts, graphs, schematics, illustrations, tables, and other visual aids
6.1.13 Use nonverbal communication to reinforce intended message
6.1.14 Present messages in a form that assists recipient's understanding (e.g., write and speak concisely, write legibly)
6.1.15 Demonstrate active listening skills
6.1.16 Secure needed information using questioning techniques
6.1.17 Participate in group discussions and meetings
6.1.18 Support communication using charts, graphs, schematics, illustrations, tables, and other visual aids
6.1.19 Assess communication skills (verbal, nonverbal, written, oral)
6.1.20 Refine communication skills

Competency 6.2: Maintain open communications

Competency Builders:

6.2.1 Employ active listening skills
6.2.2 Evaluate audience
6.2.3 Build personal communications
6.2.4 Develop communications with superiors
6.2.5 Develop communications with subordinates
6.2.6 Develop communications with peers
6.2.7 Develop communications with other departments
6.2.8 Develop communications with customers
6.2.9 Build trust through communications
6.2.10 Employ negotiation skills
6.2.11 Employ conflict resolution skills
6.2.12 Determine sensitivity of subject
6.2.13 Determine timing of communications
6.2.14 Develop an approachable atmosphere

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The Purpose of Job Profiling

Developed by American College Testing (ACT), the purpose of the Job Profiling process is to identify the **level** of applied academic skills that, according to business and industry, students must master to qualify for and be successful in their occupation of choice. The results of Job Profile "leveling" can help teachers to better target instruction toward their students' needs.

As part of the Ohio Vocational Competency Assessment (OVCA) program, the Vocational Instructional Materials Laboratory (VIML) at The Ohio State University has conducted Job Profiling workshops in which representatives of business, industry, labor, and community organizations identified the academic skill levels needed by entry-level workers in the occupational areas covered by the Occupational Competency Analysis Profiles (OCAPs). Job Profiling for all OCAPs was sponsored by the Ohio Department of Education, Division of Vocational and Adult Education.

OVCA—What Is It?

The Ohio Vocational Competency Assessment (or OVCA) package consists of two assessment components: OCAP and Work Keys. Together they measure entry-level occupational, academic, and employability skills. All OVCA items are criterion-referenced, use a multiple-choice format, and are administered using a traditional paper-and-pencil method. The OVCA is designed to do the following:

- Provide one dimension of a multi-assessment strategy for career passport credentialing
- Evaluate learner readiness for jobs requiring specific occupational, academic, and employability skills
- Assist educators in curriculum development
- Provide state-aggregated learning gain scores to comply with regulations in the Carl D. Perkins Vocational and Applied Technology Act of 1990

OCAP. The OCAP component of OVCA assesses students in occupational skills—employment requirements—in a particular occupational area. Assessment is based on the core competencies identified through the OCAP process, and each multiple-choice assessment item is correlated to those essential competencies.

Work Keys. The Work Keys component, developed by ACT, measures students' applied academic skills. All OVCA packages contain two Work Keys assessments:

- *Applied Mathematics* measures students' ability to analyze, set up, and solve math problems typically found in the workplace.
- *Locating Information* measures students' ability to use graphic documents to insert, extract, and apply information.

In addition, certain taxonomies will use the following Work Keys assessments:

- *Reading for Information* will be used by Business, Marketing, Home Economics, Health Education, and Cosmetology taxonomies.
- *Applied Technology* will be used by Trade and Industrial and Agricultural Education taxonomies.

Other optional Work Keys assessments, not included in the basic OVCA package, are *Teamwork*, *Listening*, and *Writing*.

Each Work Keys assessment is further broken down into four to five levels of achievement, with higher numbers indicating higher achievement in the assessed skill (descriptions of the levels for each Work Keys assessment are provided on pages 3-9). For each academic skill, the Job Profiling process identifies the level required for successful entry into an occupational area.

Job Profiling—How It Works

VIML's Job Profiling process was initiated by mailing surveys to current workers in OCAP occupations all across Ohio. The survey's purpose: to have actual workers in specific occupations rate job tasks according to each task's frequency and criticality—that is, the amount of time spent performing each task relative to other tasks and the importance of each task to overall job performance.

To complete the survey, participants examined OCAP competencies for their occupation. Based on the survey's results, VIML staff produced a list of the most critical competencies in each occupation.

The next stage of Job Profiling was to convene committees of subject-matter experts to perform "leveling," which involved the following tasks:

- Examining the frequency and criticality competency lists for an occupation
- Reviewing the levels associated with each of the seven Work Keys academic skills: *Locating Information, Reading for Information, Applied Mathematics, Applied Technology, Listening, Writing,* and *Teamwork*
- Identifying the level of skill students must master relative to each Work Keys academic skill in order to successfully perform the occupational competencies

Finally, in 1995 and 1996, the initial leveling of Work Keys academic skills for the occupational areas were revalidated by a new panel of expert workers convened to update the OCAPs.

Academic Job Profile:
Business Administration and Management

Applied Mathematics

Locating Information

Reading for Information

Applied Technology

Teamwork

Listening

Writing

NOTE: Definitions of each level in each of the seven academic skill areas are provided on the pages that follow.

Levels of Work Keys Defined

The skills needed to achieve each level for each of the seven Work Keys* academic skills are as follows.

Applied Mathematics

Applied Mathematics measures skill in applying mathematical reasoning to work-related problems. There are five levels of complexity, 3 through 7, with Level 3 being the least complex and Level 7 the most complex. The levels build on each other, each incorporating the skills at the preceding levels.

Level 3

- Perform basic mathematical operations (addition, subtraction, multiplication, and division) and conversions from one form to another, using whole numbers, fractions, decimals, or percentages.
- Translate simple verbal problems into mathematical equations.
- Directly apply logical information provided to solve problems, including those with measurements and dollars and cents.

Level 4

- Perform one or two mathematical operations (such as addition, subtraction, or multiplication) on several positive or negative numbers. (Division of negative numbers is not covered until Level 5.)
- Add commonly known fractions, decimals, or percentages (e.g., ½, .75, 25%) or add three fractions that share a common denominator.
- Calculate averages, simple ratios, proportions, and rates, using whole numbers and decimals.
- Reorder verbal information before performing calculations.
- Read simple charts or graphs to obtain information needed to solve a problem.

Level 5

- Look up and calculate single-step conversions within English or non-English measurement systems (e.g., converting ounces to pounds or centimeters to meters) or between measurement systems (e.g., converting centimeters to inches).
- Make calculations using mixed units (e.g., hours and minutes).
- Determine what information, calculations, and unit conversions are needed to find a solution.

Level 6

- Calculate using negative numbers, fractions, ratios, percentages, mixed numbers, and formulas.
- Identify and correct errors in calculations.
- Translate complex verbal problems into mathematical expressions, using considerable setup and multiple-step calculations or conversions.

Level 7

- Solve problems requiring multiple steps of logic and calculation.
- Solve problems involving more than one unknown, nonlinear functions (e.g., rate of change), and applications of basic statistical concepts (e.g., error of measurement).
- Locate errors in multiple-step calculations.
- Solve problems with unusual content or format, or with incomplete or implicit information.

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